THE
Medical and Physical Journal.

VOL. XII.] DECEMBER 1, 1804. [NO. LXX.

Printed for R. PHILLIPS, by W. Thorne, Red Lion Court, Fleet Street, London.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT often happens that those medicines made use of in the common routine of practice, which, generally speaking, answer our purpose in the established methodus curandi, in certain diseases, are frequently, from unforeseen and fortuitous circumstances, rendered totally inert. Having lately experienced an instance of this kind, I am induced, with your permission, to give it that publicity which the Medical Journal will afford it, from a thorough conviction that a faithful narration of similar occurrences, will prove conducive to the good of the community, by adding to our present stock of knowledge in therapeutics, and by putting us in possession of a dernier resource, when every other method has proved abortive; for such knowledge will prove a real treasure, capable of wearing down the rough edge of disappointment, and soothing that anxiety which every professional man must feel for the welfare of his patient, as well as his own reputation; which are desiderata of no small magnitude to a man endued with *common* sensibility. Our motto ought to be, Ne laissez rien à tenter.

Having at present the care of the paupers of this place, I was desired the other day, to visit a young man who had been subject to a violent purging for some time previous to my attendance. I found him affected with many of the symptoms of typhus gravior; he was comatose, frequently muttered, and occasionally catched at the bedclothes; his tongue was covered with a brown fur, his skin hot, pulse slow and feeble. The period for cleansing and preparing the primæ viæ for the exhibition of necessary remedies had long elapsed, and the only plan of cure which I thought could be adopted with any prospect of

success, was at once to endeavour to check the purging, and restore perspiration. To effect these purposes I administered the pulv. ipec. comp. beginning with ten grains three times a day, and increasing the dose till he took two scruples in twenty-four hours; he was put into the hot bath, and had afterwards flannel applied to his body; his food was farinaceous and gelatinous, but his stomach was so irritable, it could retain little, and that quickly passed through him; his egesta were often tinged with blood. I considered his disease to be a well marked dysentery, as it was attended with tenesmus and shooting pains in his bowels, particularly about the regio umbilici. Finding those remedies fail, I had recourse to a variety of astringents, such as catechu & cret. pp. combined with aromatics, and laudanum to the amount of gt. 100 in the course of the day and night; but these were also useless, and did not appear to alleviate a single symptom. I was hitherto completely baffled, and now determined to try the effects of solid opium; and, strange to tell, he took seven grains in twenty-four hours, without restraining the purging. Though I have been in the habit of treating dysentery in tropical climes, in the whole course of my practice I never knew opium have so little effect: it has frequently cured this complaint, I may almost say, per se; and with the assistance of a saline purgative or two, it seldom failed; but my patient in this case was so much reduced, that this practice might have been considered as an act of unpardonable temerity. Nor durst I attempt to give a combination of calomel with opium; I therefore had recourse to mercurial inunction, and with the happiest effects it crowned the earnest expectations I formed from it. About two ounces of the ungt. fort. were rubbed in, before its operation on the system became visible. As soon as his mouth was affected, his skin grew moist; and on visiting him one morning, I was astonished to find him in a perspiration so profuse, that the hair of his head resembled the grass in a summer's morning, bespangled with dew. From hence we may conclude, that the hair which people lose after fevers, is occasioned from lack of moisture.

Every untoward symptom now began to vanish; his mind, which had been so long oppressed, again exerted its rational powers; his stomach, instead of loathing food, began to relish it; his purging soon left him; in fine, the stimulating and deobstruent qualities of the mercury completely restored the healthful equilibrium, which appeared to have been destroyed from want of cuticular secretion;

and

and gentle tonics, assisted by nourishing diet, soon restored him to his wonted health.

I am perfectly convinced, that a more general adoption of those methods of cure which have of late obtained in the *public service*, would prove highly beneficial to private practitioners, and the public at large; but the ever to be deprecated idea, that innovations are *always* dangerous, serves to shut the door of reason, and prevent the cheering rays of science and improvement from illuminating the benighted mind. The good effects of mercurial inunction in typhus and malignant fevers, have been displayed in numberless instances, and well merit the most serious attention of such medical gentlemen as are strangers to this mode of practice: and I should not be surprised to hear, that this treatment has been the most successful, in the cure of that terrible scourge which is at present committing such ravages at Gibraltar.

I lately, through the medium of your Journal, when treating on Sphacelus, made mention of the powerful effects of nitre, in correcting putrescency, and arresting the progress of mortification; two cases were then adduced, where its efficacy was proved in the most unequivocal manner. I have at this moment a patient under my care, who had a mortificatiou on the external part of the forearm and hand, occupying a space of 9 inches in length. The integuments, fascia, and part of the muscles were completely destroyed, as well as the extensor digiti medii tendon; and though the mortification was so extensive, the repeated application of powdered nitre prevented the mass of humours from being corrupted by the absorption of putrid virus; it appeared very evident at every dressing, that the nitre had perfect command over this dreadful disease, by entirely subduing that cadaverous fœtor which always exhales from mortified parts. When I found the smell no longer offensive, I applied a cataplasm of roasted onions to the part, by way of removing the slough, and assisted its operation by means of fomentations, composed of bitter and antiseptic herbs, such as wormwood, &c. The line of separation soon appeared, and the sphacelated parts were easily removed, (the tendon excepted, which was a considerable time in sloughing away) when the onions were discontinued, and boiled carrots were applied; the wound soon began to assume a favourable aspect, being filled up with healthy florid granulations, and is now nearly cicatrized.

 It

It is worthy of remark, that the patient's stomach was very little affected; he was enabled to take in a sufficient quantity of nutriment, which, in all probability, would not have been the case, if absorption had taken place, or his stomach had been loaded with *huge doses of bark*; he took the decoct. cinchonæ, and was allowed strong beef soup, with a liberal quantity of port wine and mild ale. Dr. Willich, in his Treatise on Diet and Regimen, has remarked, that pork predisposes to mortification; and I believe there is much truth in the observation. My patient had subsisted chiefly on pig-meat; and it appears from the history of his case, that his misfortune arose, in the first instance, from a small pimple on his hand, which became so troublesome, that he was induced to apply to a celebrated empiric, whose skill was so perfectly baffled in this case, that he was constrained to acknowledge, from the black, blistered, swelled, and frightful appearance which the patient's hand and arm exhibited, that the case required more of the acumen chirurgicum, than he could boast of, and recommended his poor suffering and deluded patient to apply for further advice, as mortification had already taken place. Nor was it surprising, considering the treatment which had been adopted; white lily root and a variety of acrid substances were applied to assuage a most active inflammation! As I have so frequently experienced the good effects of the remedy which I so strenuously recommend, I request as a *particular favor*, that some of my medical brethren will, when opportunity offers, publish the result of cases which may occur in their practice, should they be disposed to place that confidence in it which its efficacy so justly entitles it to. In a crowded hospital, after a great naval action, I have known some of the stumps become sphacelous; but these unhappy men soon fell victims to death: I have since often regretted, that the virtues of this invaluable medicine were then unknown to me.

It has lately been ascertained, that the nitrous acid gas possesses the power of destroying contagion, on which account Government supplies the Navy with the materials and utensils necessary for the purpose of fumigation. It has often been proved, that malignant ulcers, exposed to the action of the fumes, have been converted into a mild state, and easily cured: yet, having a knowledge of these circumstances, I must confess that I was not induced to use this remedy from any analogical inference striking my mind, but from the simple idea, after a fruitless strug-
gle

gle to subdue the fœtor issuing from a sphacelous foot, that as nitre was found to preserve animal substances from putrefaction, it might also arrest its progress when commenced; and such has been invariably the result in the cases which have come under my care.

It may not be amiss to inquire into the modus operandi of this medicine, which I shall only attempt in a cursory manner, and leave the rest to those who are more fond of speculative and chemical inquiries than I am.

Modern chemists have discovered, that nitre is a composition of oxygen and azote; and whatever may be the component parts of animal substances in a state of putrescency, it is certain they contain some part very greedy of oxygen, which is readily imparted by the penetrative and soluble nature of this salt, that seems to neutralize and render the offensive mass perfectly innocuous. Charcoal, which is said to contain a quantity of oxygen, has frequently been applied to mortified parts; but it is probable that it cannot give it out with the same facility as nitre does; on which account it is less efficacious. Though this line of the poet be not applicable, "Omne tulit punctum, qui miscuit utile *dulce*," I hope the request I have made may be attended to, and that the time I have employed on this paper will not be considered as mispent.

I am, &c.

Romsey, Nov. 13, 1804. RALPH CUMING.

SOME REMARKS ON THE PRESERVATION AND MANAGEMENT OF LEECHES; *by* G. WILKINSON, *Member of the Medical Society of London, of the Royal College of Surgeons of Edinburgh, and Honorary Member of the Medical Society of Aberdeen, Literary and Philosophical Society of Newcastle upon Tyne, and Chirurgo-Physical Society of Edinburgh.*

GREATLY as the Art of Medicine has of late years been improved by the industry and diligence of its professors; yet so much remains to be done, that we can scarcely flatter ourselves (as human beings) that it will ever attain its *ne plus ultra*, or state of perfection. Hence it follows, that whatever tends to its advancement in the smallest degree, however frivolous it may appear to the indolent,

careless, and unreflecting part of mankind, will nevertheless be regarded as important by the wise and prudent.

I have been led to these reflections from the inquiries of your Correspondent, S. M.* relative to the mortality and preservation of leeches; a subject of many other apparently trifing appendages to Medical Science, that not only appears to be little understood, but very much neglected. Very many animals, and indeed almost every living creature, has become more or less the object of the inquiry of ingenious Naturalists; but that which relates to this useful and (I may justly say) valuable reptile, the leech, appears, so far as I am acquainted, to be very much neglected.

To trace its first introduction into medical practice from the earliest period of time, with its natural history, preservation, and management, and to compare its effects with those of venæsection, cupping, blistering, scarification, caustication, cauterization, and various other external means, used for the cure and alleviation of different complaints and diseases; together with what relates to their action and effects produced on the animal system, locally or generally, would, undoubtedly, be of no small acquisition and importance to Medicine. That such an inquiry is not unworthy the attention of some of your learned and ingenious Correspondents, whose leisure, ability, and inclination might induce them to prosecute so useful and necessary a subject, there can be but little doubt.

Your Correspondent, S. M. speaks of the great mortality that happened among his, and other gentlemens' leeches, nearly at one and the same time; and as his paper is dated in the month of August, and these deaths seemed to occur in the preceding months, it is by no means improbable, that such an accident may have proceeded from the heat of the sun, or degree of temperature in which they had been kept. That it has frequently been the case with leeches kept in such situations in summer, I have often known to occur, and sometimes, though not frequently, in very severe winters. Whatever difference there may be in the nature and properties of the water in which they are to be kept, seems to be a matter of dispute; Mr. Whitlam† prefers river to spring water, and your Correspondent. S. M. and he

* Medical and Physical Journal, No. 67, Vol. xii. p. 220.

† No. 68, Vol. xii.

he are of opinion it should be renewed daily. The former gentleman also recommends that this water, (but for what reasons he has not assigned) previous to its use, should be kept in a cistern two or three days; and in cold weather, that it should be in a tepid state. Mr. Ring says,* "that the wholesale dealers in leeches keep them in spring water during the severity of winter, because it is then warmer than river water; possibly, it may be better than river-water during the summer, because it is then colder, and particularly if the putrefaction in river-water have any share in producing the mortality in question." He also says, "It is obvious that a cool situation should be preferred in summer, and a warm one in winter." These remarks of Mr. Ring, are perfectly consonant to my experience, not only with respect to the spring in preference to that of river water, but also that of the temperature of heat necessary to keep them, which in summer I have deemed not higher than 60°; and in winter not lower than 50° of Fahrenheit's thermometer.

The diurnal change of the water, for which your Correspondent and Mr. Whitlam contend as necessary, though not noticed by Mr. Ring, seems, so far as my observations extend, to be of no essential service. Water, when pure and fresh from a spring or river, is in the Scripture phrase termed *living;* but when deprived of its vitality by putrefaction, or rarefied by heat, becomes dead. This process however, which takes place much sooner in water alone than that in which leeches are kept, even in the same degree of temperature, is a fact that cannot have escaped the notice of those persons, who for any length of time have been in the habit of observing, how much longer water retains its sweetness in which these animals are kept, and also small fish in glass globes.

Perhaps the vital principle of the animal, resident in its natural element, may contribute in no small degree to uphold, or support, for a longer space of time (than it otherwise would do) the vitality of the water; and, *vice versa,* the vitality of the water, when in a due state of temperature, may be said to support the animal.

These old-fashioned remarks, which I have hazarded on account of their being easier understood by general readers, (than those of modern chemical phraseology) may perhaps serve to explain the reasons why leeches are

Ii 4 more

* Medical and Physical Journal, No. 68, Vol. xii.

more subject to die in vessels containing a great number, and in which there may not be a sufficient proportion of water to each, than of a small number which are kept in a large quantity of water; and also serve to develope, in some measure, the late mortality complained of by your Correspondent S. M. as well as other considerable losses that may have happened to others in similar situations.

Leeches which I have kept, although not more than six or eight together, were usually put in an eight-ounce vial; and have sometimes, even in summer, not had their water changed for some weeks; and in winter I have kept a similar number even to two months or more, yet I have always found the water free from fœtor, although I then changed it; but even this was often done by way of preventing what might not have happened, than perhaps any injury that would have taken place after twice or thrice this space of time had elapsed; for I have known not a few instances in which from one to two or three leeches, kept in a like situation, have remained alive for nine months, or above a year, without a change of water; and this last was not found putrid.

It has not unfrequently happened, that when one, or perhaps two leeches died, that these were such as had a little before been applied; and not being sufficiently disgorged, were then put in a phial with others that had not recently bitten; the blood remaining in them from their bite, being afterwards evacuated in the water, it, in the space of six or seven days, became putrid, but was instantly changed, to prevent the destruction of those remaining. The putrescency of the water in this instance, perhaps, was as much occasioned by the blood as the death of the leeches, which proceeded from their improper treatment, they having been applied by an unskilful person.

Of late, it has been customary for me to keep leeches, immediately after they have bitten, in a separate vial, and to examine them daily, being of opinion that such are more liable to die than those that are fresh, or have bitten some time prior, and are recovered.

No single leech, nor any number that have recently bitten, should be put into a fresh stock, or among such as are in health, after having performed their office; this appears to be more requisite, as, should any of the number die, it will be difficult to determine to what set they appertain, or to what cause their death is to be imputed.

In

In one instance, where a single leech had been kept in water unchanged for more than six months, and in another, where two were in a similar situation, the water of both was not fœtid, but somewhat muddy; this being thrown away, and fresh added, they, in the space of four or five days, were found dead.

From these considerations I have been induced, on changing the water in which leeches are kept, whether for a long or short space of time, except it be once every two or three days that I have occasion to use them (and then I omit this process) to mix one-third, or half as much fresh to the old water; a precaution which, however frivolous it may appear, seems not unnecessary, as the variation or difference between these waters (but on what account I do not pretend to say) most likely occasioned the death of those already noticed.

These occurrences, which seem merely the result more of accidental observation than any designed experiment for the real ascertainment of the facts I have advanced, tend to prove, that the frequent change of water is by no means so absolutely necessary as is supposed; for the proofs already stated appear more, I think, to discourage its frequent use than what has been advanced in its favour. S. M. says, that his, and friend's leeches died, notwithstanding this precaution; and in most instances this has been found to be the case generally, more especially as has been already noticed, where there has been a considerable number crowded together in perhaps too small a portion of water, added most probably to that of a heat of too great a temperature.

The subject next for our consideration is, that of their application, management, and the treatment posterior to the performance of their office. These being of more real importance than superficial, self-sufficient, or inattentive observers may deem necessary, will, I am persuaded, be considered in a very different light by those who have experienced the difficulties, accidents, and disappointments, with which it is not unfrequently attended.

A wine-glass, of a larger or smaller circumference, and proportionate to the surface, or part, to which one or more of these animals are to be applied, seems much more convenient than the fingers; and that not only with a view of observing their motions, circumscribing their limits, retaining them in their proper place assigned for their bite, but it also tends to support them when *filling*, and thereby prevents

prevents their separating from the parts sooner than they otherwise would do.

To confine them on the temples, pubes, groin, scrotum, knee, or elbow joints, eye-lids when tumefied from blows producing extravasation, face, neck, and certain tumours of a circumscribed magnitude, as well as the limbs of children, &c. a smaller glass will not only be necessary, but the degree of pressure should be such as to prevent their escape, and so managed as not to give pain.

Prior to their being put on, the parts should be cleaned from such applications as have been previously used, with a sponge dipped in soap-lather, and wiped dry. This precaution, though sometimes neglected, seems absolutely necessary, as the effects of some remedies* not only prevent their biting, but to my certain knowledge have almost instantly destroyed them.

On being applied, they sometimes lie long in a torpid state; and at others, they recede, will not bite, or even touch the part, but tenaciously adhere to the top of the glass; on removing them, and applying others, *they* have immediately fixed, and on their falling off after being glutted, those which before refused have afterwards bitten, no doubt from the effects produced on them by the blood, with which they are in contact. To ascertain this fact, I have at times punctured my hand on its upper surface with a lancet, and on rubbing the parts with this blood, frequently succeeded, when for a long time they refused biting, after a small portion of sugar and water, and even milk alone, or mixed with the same, had failed. In short, so much patience, as well as dexterity, is requisite in the management of these capricious, or rather irritable animals, that it may, notwithstanding the apparent simplicity of such an operation, be considered as an art.

Some instances have occurred where they had bitten and remained on the part but for a short space of time, so as to have got but little blood; by dint of patiently retaining them on the part, I have found that they fell to it again, and performed well.

In cases where the use of leeches is urgent, it seems expedient (if they can be procured) to have them not only large ones, but where a number are required to be applied, to be prepared with ten or a dozen; by these means, we have

* Such as volatile liniment, camphorated spirits, ol. terebinth. solutio sal. ammon. &c. &c.

have not only a choice, as some will, and others will not bite, but a greater certainty of effecting our purpose more completely.

It has nevertheless happened not a few times, when I have had occasion to use them in the evening after sunset, that is, where I used candle-light, although I have sometimes tried half a dozen separately, or two at one time, that they would not bite; moreover, I have also remarked, that in cloudy, or rainy weather, particularly when the barometer was low, they were equally averse.*

These animals, as I have sometimes experienced, do not, and indeed will not, bite on places covered with hair, more particularly on the scalp, where it is strong, and thick set; for admitting this part to be close shaved, I have found the sharp points of the incised hairs so greatly to annoy them, as to prevent their fixing; but on the temples, the hair being of a thinner texture, or less thick, by close shaving, not only a larger space has been procured for their range, but they have more readily bitten. In like manner, if the hair is close shaved from the pubes, groin, scrotum, arm-pits, &c. for reasons already named, they will more readily bite than they otherwise could have done.

Exclusive of what has already been said, there still remains some other remarks necessary to be noticed, which is the situation of the patient's body previous to, or at the time of their application; this should be in a horizontal posture, when applied to the belly, sides, breast, or breasts, (these last, in women, may be elevated, and also the scrotum or testes). But when applied to parts appertaining to the head, as the temples, face or neck, a sitting posture will answer the purpose by reclining it in whatever posture it may be suitable. The upper and lower extremities, with the posterior parts of the body, to which last they are but seldom applied, require no particular directions, but may be managed according to circumstances; those regarding the mouth, such as the gums, lips, or inside of the cheeks, may be left to the prudence and discretion of the operator, or operators. In these last complaints, it however appears

---

* That leeches are influenced by the state of the weather, there can be no doubt; and on this account many persons have considered them as tolerably accurate barometers; be this as at may, my experience has not yet furnished me with a sufficient number of observations to ascertain this fact with strict accuracy.

appears to me, that their use should be laid aside; for whatever advantage may be expected to be derived from their application in such cases, they certainly are not worthy the attention of the medical adviser, operator, or that of the perplexity, uneasiness, and risque incurred by the patient; and this more especially as it is safer to use the lancet where gum-boils or abscesses are to be opened; or if this is not necessary, scarifications or incisions.

I should have noticed, that when the leeches are firmly fixed on the part or parts, and in the act of *suction*, they ought by no means (which not unfrequently happens from the awkwardness of the patient, or person holding the glass) to be disturbed; this ought to be so managed as to support them when fixed, till they are glutted; the glass being reclined so as to admit air; and the operator, while in the act of performing his office, should, to prevent his arm being wearied, rest it on something solid.

Supposing however it should happen, which it would not, if the operator was not a mere bungler, he having the leeches in the glass to see what is going on; I say, were they to bite, or fix on improper places, or what is full as bad, on his fingers, or hand, common salt being always ready, (he should be careful not to pull at the animal lest he destroy it, and perhaps ineffectually put the patient or himself to unnecessary pain) a little should be put on its mouth, which will instantly cause it to fall off safely.

Our next inquiry relates to their treatment after having bitten, the nice management of which, is of the utmost importance for their future preservation; and this is the more to be regarded when we reflect, that after having done their office, they are by many considered of no further use.

By some, their death has been ascribed to what they term, the poisonous effects of the blood, or other fluids imbibed; and this opinion has become stronger in proportion to the greater or less distance of the time of their dying when separated from the parts bitten. If, e. g. as is usually the case, they are thrown on a large quantity of salt provided for their purgation, their immediate death, which is the necessary consequence, is ascribed to the cause above mentioned, and is also considered in the same light, should they die in a longer or shorter time after being put into water; but if they fortunately escape death from the more skilful management by the salt not coming in contact with other parts of their body, excepting their mouths,

mouths, the marvellous opinion of the poison received, vanishes.

Whatever may be the notion of the poisonous effects of blood sucked by leeches, so as to occasion their death, is to me a mere *chimera;* I do not think they can be injured by it, provided they are properly managed after performing their office, and this not only from reasoning, but my extensive experience convinces me of its fallacy.

Neither do I believe that a leech or leeches, which may have been previously applied to patients in the small-pox, measles, scarlet fever, venereal buboes, or other affections of this sort, or to cancerous, venereal, or phagadenic ulcers, bite of a mad dog, or any other specific disease whatever, will or can communicate a similar affection; and this no more than I ever believed that the matter taken for inoculation from the small-pox of a child, labouring at the time under scrophula or lues, could communicate those diseases. As for any other mode of treating them than that with common salt, I profess myself totally unacquainted; but as this has answered completely to my satisfaction, and needs only to be used with caution, I shall proceed to relate in what manner it is to be used. Having prepared a large shallow clean plate, and some salt by itself, together with a bason half full of fresh water, I put the leech or leeches thereon, after they have bitten. I then take a small portion of salt, equal to a moderate pinch of snuff, compressed between my thumb and fore finger, to make it fine, and place it in contact with the mouth of the animal. I carefully avoid at the same time, touching with it any other parts of its body, which, should this happen, may be easily pushed gently off with the fingers. This causes it to contract itself, should it not immediately disgorge, into a thick short round form, while at the same time it projects, and turns up its mouth into a small, tapering appearance, resembling a proboscis, and in this state will often remain for some seconds, in a sort of torpor, till at length it recovers by disgorging a small quantity, and at other times does not. The salt, which I afterward increase a little in quantity, is then so put on the plate, that the animal in its progressive motion may come as nearly as possible in contract with it, by its mouth, no other parts being allowed to touch the salt, to prevent the injury resulting from its application, which, should this happen, will more or less damage it, by corrugating, or blistering its body. This mode of procedure, though slow, is not altogether unamusing, and it is curious to perceive how it avoids

avoids the salt on slightly touching it with its mouth, when if it should come in contact beneath this part, it does not appear to be disturbed; but should it firmly fix its mouth on the salt, which is often the case, it is sure to vomit most plentifully, sometimes in a small thready stream, and at others in small gulps; the blood, as may be naturally expected, is at first of a moderate red colour, but on mixing with the salt, a beautiful scarlet hue diffuses itself, as it were, *quaquaversum*, from the centre to the circumference. In this manner, it is necessary to proceed by alternately placing the salt to its mouth, till by reiterated disgorgements the animal has emptied itself, which may be known from its being reduced to the size it appeared prior to its application, and from its ceasing to vomit on coming again in contact with the salt; but as the dose of the salt may be carried to too great an excess by its frequent repetitions, and has happened to be the death of two of my vermicular patients, a third, after remaining a long time in a state of torpor, recovered, it behoves us to act with no small caution; and as a proof of having carried this evacuating plan too far, the leech, when sufficiently purified from its blood, not only appears to be reduced to its natural size, but is apt from being before this, brisk and lively, to become, when plied with too much salt, inactive, and turns on its back. It is then high time to throw it into the bason of fresh water, and if it is free from injury, it will immediately frisk and play about, although I have known them, after remaining for some time in a state of torpor, ultimately recover. Such of these leeches as have gone through the processess we have described, and appear to be perfectly recovered, should be kept separate from those that are sickly, or in a state of vital suspension; this is the more necessary, as in case of death, they will be apt (as has already been hinted) to prove destructive to those which are in health.

I ought to have stated, that where much blood was evacuated on the plate, from one or two leeches falling off together or separately, it should be afterwards cleaned with a wet sponge, in order to admit others, as well as to avoid the confusion and embarrassment by its quantity and disagreeable tenacity, enveloping and adhering to the leeches, as well as with a design to observe their motions, when under the evacuating plan; and I must also remark, that placing a little salt occasionally at the verge, or extreme circular boundary of the diffused blood, in which they are surrounded, this salt being diluted, has the advantage

vantage of operating less forcibly on every part with which it comes in contact, and is the less liable to do them any material injury. Separate plates, or rather cleaning one plate, after each leech has been purified, seems necessary from what has been said.

Leeches, managed in the cautious manner we have observed, most assuredly will survive after their operation, be they ever so frequently applied; and it is remarkable, that such as are in the habit of biting, are preferable to those that are fresh or untried, as they more greedily fasten themselves on the parts to which they are applied. The larger they are the better; the middle size require more in number to equal the effects of but a few of the former, while the small ones, even in diseases of children, appear to be but of very little use, excepting in some cases of extravasation of blood not deeply seated; and these last, even from the gentle treatment recommended after biting, are much less liable to survive.

From what has been said, it evidently appears, that the consumption or rather destruction of leeches, proceeds perhaps as much from the barbarous murders injudiciously committed on them after having performed their office, as that of keeping or preserving them for mere sale for the consumers. And it may be taken for granted, that these last persons, from the sordid avarice of the retail dealers, who have lately experienced the sweets of their enormous profits,* will hereafter, by their keeping up an artificial scarcity, still continue (if not checked) their impositions.

It cannot therefore be doubted, that should these animals be carefully preserved, which by skilful management after their operation (from the rules prescribed) they are most likely to be, their scarcity and enormous price will not only be lessened, but their use more generally extended, and that among the inferior class of people, which at their present exorbitant price, seems almost impossible.

As a positive and convincing proof of what I have just now advanced, exclusive of what I have experienced generally, I must beg leave to remark, that being under the necessity myself, of using leeches in a complaint requiring their reiterated application for more than seven months, and

* Your Correspondent, S. M. says, that in February and March, this present year, they could not be purchased in Covent-Garden Market for less then 3s. 6d. each. At present, August 6, they fetch 8 or 9s. per dozen; less than twelve years ago, he bought them for 2s. 6d. or 3s. per hundred. Med. and Phys. Journal, No. 67, Vol. xii.

and not being able to procure more than ten of a tolerably large size, I applied five, alternately, for at least fifty times, in the space above mentioned; of these, two were lost, a third was given to a patient, which was killed by mal-treatment, a fourth died, and the rest remain in perfect health.

To point out more clearly the important advantages resulting from such laudable industry in the preservation of these useful animals, I have made the following estimate: And though, according to the careless treatment generally used, one leech seldom bites more than once; yet, to give a fair and reasonable statement, I have allowed such to bite twice.

Number of leeches used — — — —	10
Applied alternately, five each time, to the number of	50
Number of bites for the whole, amount to —	250
Number of bites for each, considering their alternate application — — — — — —	25
Number required according to the general treatment to perform the same number of bites, allowing each to bite twice — — — — — —	125

This number, at 3s. 6d. each, as lately sold at Covent-Garden Market, amounts to the sum of	21	17	6
Ten, at the same price, will amount to —	1	15	0
Money saved, £.	20	2	6

In this part of the world, they are sold at a more reduced price, about 9s. per dozen; this, however variable, produces no alteration in the comparative difference, but leaves the money saved proportionably the same.

If, in the instance we have related, this œconomical practice appears so highly beneficial, its general adoption cannot but be productive of immense advantages, as the great benefit derivable from the *œconomy of life* in these hitherto neglected animals, will become a principal means of preventing their future scarcity, which, in not a few instances, where their use is absolutely necessary, cannot easily be replaced by any other means capable of producing similar effects.

Sunderland, Nov. 5, 1804.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE disease of hepatitis suppurans terminating favourably, being a rare occurrence, but very few instances of which, if any, are upon record, I have transmitted to you the following case, and request you will give it a place in the Medical Journal.

W. B. aged twenty-three years, a private in the Loyal Birmingham Volunteers, when marching in a very hot day in June last, with the battalion, from Litchfield to Birmingham, was suddenly taken ill on the road, but continued his march. I saw him two days after his arrival here, when he complained of a pain in his right hypochondrium, extending to the scapula on the same side, with cough, and inability to lie on the left side, and every other symptom of acute hepatitis; his pulse was quick and full. I ordered him to be bled to ℥xvj. immediately, a large blister to be applied to the right hypochondrium, and a laxative medicine with calomel to be taken. The blood exhibited much of the inflammatory or buffy coat, but the symptoms were not much alleviated, and venesection was ordered to be repeated to the same quantity as before, and small doses of tartarized antimony to be taken frequently. The discharge from the blistered part was kept up by the application of the unguentum cantharidis.; subacid fruits, and low diet were enjoined. The day following, he found himself better, but not free from pain; the blood had the same appearance as before, and his pulse being still full and strong, he was again bled, after the interval of one day, to ℥xij. The blood still showed a slight inflammatory coat, and he found himself much relieved, the pain having left his shoulder, and being able to lie on his left side, but he still felt some uneasiness about the region of the liver; his appetite was bad, and his ancles became œdematous. He was now ordered to take small doses of calomel, morning and evening, and (the part where the blister was applied being healed) a drachm of the unguentum hydrargyri was directed to be rubbed into the side twice a day, and he took a mixture with about five drops of laudanum, three times a day. This was continued for a few days, when Dr. Carmichael attended the patient with me; his

 cough

cough became more troublesome, and was followed by a purulent expectoration. On examining the affected side, a small tumour was observed with slight fluctuation, and the patient began to complain of cold shiverings, and soon afterwards became hectic. We had now no doubt but that suppuration of the liver was taking place, and a seton being passed through the tumour, more than a quart of very fetid matter immediately issued from it, and the expectoration of pus ceased: a mixture containing the nitric acid and camphorated tincture of opium was prescribed. The discharge from the seton continued the whole day. On the morning following, when we saw our patient, he was in a most deplorable situation; the thread of the seton not having been properly tied, had come out in the night, and the discharge from the side had stopped, but large quantities of fetid pus, of a coffee colour, mixed with blood, were emitted from the mouth; the cough was most urgent, the pulse weak and rapid; cold drops of sweat were distilled from every part of his body, and his cheeks were alternately overspread with a deadly paleness, or flushed with hectic fever, and a speedy dissolution was to be expected. Nearly two large chamber-pots full of pus were thus discharged from his mouth in about twelve hours. The thread was immediately replaced through the tumour, and poultices applied to the side, and small doses of opiates, with mucilages, &c. prescribed. In a few hours the discharge by the mouth ceased, and never returned; that from the side appeared again, and in considerable quantity. The day following the patient, though extremely weak, felt himself much easier, and the violence of the cough (though it troubled him for some time afterwards) was considerably abated. He continued the use of the above medicines with trifling alterations, for some time, which were afterwards changed for the decoction of bark with a few drops of laudanum. The hectic fever gradually left him, and the cough and pulmonary affection (produced by the discharge of the matter through the diaphragm and lungs to the mouth,) have now entirely disappeared; and after the space of three months, the whole of which time pus continued to issue from the affected part, he perfectly recovered his health, and is now as well as at any period of his life, excepting that his side is not yet quite healed.

On being present some time ago at the dissection of the body of a person who died of enteritis, evident marks of a former-

former suppuration of the stomach, (from which the patient had recovered,) were found. I may, perhaps, trouble you with the case at some future time. I am, &c.

Birmingham, Sept. 8, 1804. GEO. EDW. MALE, M. D.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Have read with much pleasure, in your highly useful Journal of the last month, an ingenious and liberal communication on the cure of agues, by your correspondent Mr. Snow. I cannot but think it reflects the highest credit on him and all others, who come forward with so much professional candour to state facts, unbiassed by prejudice or false hypothetical reasoning and theory, or making real truth and actual benefit, as many do, their last consideration. I am most decidedly an advocate for the use of emetics in the cure of agues, in the form of nauseating doses, as has been recommended. You certainly act by them on the skin in a way that cannot be done by any other means, stimulating the excretory surface, relaxing its spasm, cutting short the rigour, altering its form, and ultimately curing this kind of fever; for although I do not consider spasm as the cause of intermittent fever, but as one of the train of symptoms, yet no doubt its removal by this stimulus on the sentient extremities of the nerves, is always importantly necessary to the cure. My object, then, in this, is to suggest an improvement in the emetics had recourse to in the cases mentioned by Mr. Snow; it is what I, in several cases of late, have uniformly used, and in most instances with the happiest effect. I unite with the tart. antim. an equal part of the cuprum vitriol. and two parts of the pulv. ipecac.; this I give in small and repeated doses, so as to produce nausea or slight vomiting at the commencement of each paroxysm. The advantage I think of this medicine over that of the tart. antim. alone is, that with its emetic property is combined a tonic one. The repeated use of it does not interfere with or lessen the tone of the stomach; the strength of the system is kept up and increased, Nature is enabled to exert herself, and, with this assistance of art, to throw off the morbid impression made upon her by the poison of fever. I am, &c.

Framlingham, Suffolk, Oct. 14, 1804. L. DAVIE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE observations which have occurred to me on perusing Dr. Kinglake's Dissertation on Gout, are by no means inimical to the mode of cure there recommended; for, I think, that with a due degree of caution, it is the true remedy indicated by the nature of the disease; and which will finally prevail over the prejudices that have in all ages obstructed the free use of it; though it seems that in a few instances, which ought to have weight from the celebrity of their names in medical science, (I allude principally to the examples of Dr. Harvey and Dr. Gregory) it has been adopted without fear, and been attended with no bad effects, that could in fair reason be attributed to it; yet they have not been sufficient to open the eyes of the generality of medical professors, or to induce an imitation of the practice. Dr. K. is, I think, much to be commended for having introduced it to the notice and consideration of the medical world; and I hope his theory of the disease, as well as the mode of cure he recommends, will undergo a thorough investigation. I have no wish to raise frivolous objections either to one or the other; but with respect to his theory, it seems to me a mere gratuitous assumption, that gout is a disease of the ligaments and tendons only, as no proof is offered to establish so necessary a position; necessary, I mean, to his theory; because on the truth of this fact the impossibility of constitutional or visceral gout is made to depend. I might, I think, as plausibly maintain, on the other side of the question, that gout cannot be a disease of the ligaments and tendons, because there is no connection or association between the ligamentous and tendinous structure, and that of the visceral organs, its primary seat. But I apprehend such a mode of arguing will have little weight with Dr. Kinglake, or any philosophic mind, towards establishing what, nevertheless, I believe to be true, namely, that gout is not a disease of the ligaments and tendons.

I rather agree with those physicians, who consider it as a disease of the membranes that cover the joints, which from their situation, their perpetual extension and contraction on the frequent motion of the joints, are liable to greater mobility, and consequently more susceptible of inflam-

inflammation than the membranes in their vicinity; and from the similarity of their structure with the membranous parts of the stomach and liver, may have their action associated with those important vital organs. Perhaps Dr. Kinglake would find it difficult to assign a reason, why, when gouty inflammation attacks the tendons and ligaments of the great toe, and of the ancle and knees in succession, or at the same time, the intermediate parts of that structure should escape without injury. But there seems no room for such an objection on the view of the disease which I have presented. Now supposing, (and I am inclined to think, that gout is produced on the extremities in this manner, though I am ready to own that the subject is very obscure, and perhaps will never be explained) supposing, I say, that some important viscus, or some membranous parts of it, become affected with a degree of torpor in consequence of cold, owing perhaps to a deficient secretion, caused by a want of due stimulation. the usual stimuli having lost a part of their effect, or the affected viscus a part of its irritability, what is the consequence to be expected? By a law of the animal economy, as it is well explained in Zoonomia, (a work which I may observe, by the way, has not yet received due attention, nor its author his due honours,) the torpor, after a certain time, should be followed by inflammation, where the vital powers are sufficent for that purpose; and by another law of the system, that inflammation does not take place on the part affected with the torpor, but is immediately transferred to a less important part, that is, to the extremities, as far as the sympathetic action can be carried, and as far as possible from the seat of vital motion, which is always the last to suffer, and does not in this disorder materially suffer, so long as it retains the power of making that salutary effort, and of relieving the more important viscera, by a metastasis of the inflammation. When gout attacks the stomach, I believe it is always the torpor which the vital powers are insufficient to remove; and which sometimes, by association or sympathy of contiguity, extends to the heart, and puts a sudden period to life. In this stage of the disorder, opium and the hot spices, by enlivening and giving a temporary force to the oppressed vital powers, produce not only a cessation of the torpor, but an increased activity, in proportion to the previous degree of it; which the vires medicatrices naturæ, exerting themselves, remove to the extremities; and it there constitutes a

 salutary

salutary disease for the moment, or one of very little consequence, compared with that which it succeeded.

With respect to the *practice* of Dr. Kinglake, my only difference with him is, that I think some caution is necessary in the application of his remedy.

When the inflammation is completely formed on the extremities, (not at the first feeling a painful stiffness of the affected joint) and when the visceral uneasiness, arising from their torpor, which I believe always precedes the inflammation of the extremities, has entirely subsided, I see no reason why the remedy recommended by Dr. Kinglake should not be immediately had recourse to, and, as I am convinced, without any danger of repulsion, because then the sympathy, I apprehend, ceases, and the associated action between the affected viscera and the extremities is as much dissevered, as if no such sympathy had ever existed; the viscera having recovered their healthy state, (*generally*, I believe always, except where the constitution is broken down by the violence and duration of former attacks,) as soon as the inflammation is fixed on the extremities. Therefore we may surely proceed immediately to the cure of it; and that we may do so without danger to life, is abundantly evinced by that cloud of witnesses, brought forward at the end of the volume; for which we are indebted to the science of Dr. Kinglake, and the successful boldness of his numerous correspondents. From whose testimony it appears, that in all the variety of ages and constitutions, and in habits which had experienced the tyranny of this disorder without controul for a great number of years, the relief obtained by the simple application of a cold fluid, was immediate, safe, durable, and perfect. Dr. Kinglake (by the bye I think, rashly) has challenged the whole world to produce an instance of failure, or of a calamitous issue; and not one has been produced, or produced only to be refuted.

The case of Mr. Baker, of Uxbridge,* ought by all means to be laid before the public. It would be the greatest sacrifice to false delicacy, not to say great inhumanity, to refuse a compliance with the request which has been made for that purpose, when so much instruction is probably to be obtained from it, if it be related without prejudice, and with a strict attention to the minutest particulars. I believe

* We perfectly agree with Mr. M. and believe the public will not be disappointed. Ed.

believe it will be found to confirm the necessity of the caution, which I have insisted on, that the remedy should not be applied till the inflammation is completely formed on the joints, when the sympathy or associated action is supposed no longer to exist. If ice water be applied before that period, the torpor from so great a degree of cold would not only instantly put a stop to what may be called the salutary inflammation of the extremities, which is just beginning to form, but would perhaps be immediately communicated to the viscus, the original seat of the disorder, the associated action between them not being entirely dissevered.*

I have heard of a case somewhat similar; the particulars of which might, perhaps, yet be redeemed from oblivion. It is that of the Rev. Mr. Smith, who was Rector of Grinstead, in Colchester, nearly twenty years ago, who, I believe, sprained his ancle, and treated it as a sprain with cold applications. But it was supposed to have brought on sympathetic gout in the stomach, and was certainly attended with fatal consequences. If inflammation was the consequence of the sprain, and, in spite of that, the gouty torpor seized the vital parts, it might receive some explanation from that law of animated Nature, called *reverse sympathy*, which more frequently occurs in weak than in robust constitutions, as well explained and illustrated in various parts of Zoonomia. If Mr. Newell, who, I believe, did at that period (as he has done ever since) administer the comforts of health, under Divine Providence, to the inhabitants of Colchester and its vicinity, should deem it a case of any importance towards throwing light on an interesting and momentous question, which must be considered at present as undecided, and will have the goodness to collect and communicate the particulars of it to the public, I will venture to affirm, that your numerous readers will be no less gratified with an impartial and minute statement of an interesting case, than instructed by the justness and philosophical correctness of his remarks, if he should think proper to add any to the statement.

I am, &c.

Bromley High Elms, Oct. 15, 1804. JAMES MANTAL.

---

* A Case has been sent to us where these cautions were not attended to, and the termination was fatal. As our Correspondent requests Dr. Kinglake's opinion on his manner of treating his patient, we shall send Dr. K. a copy of the Case, and expect his answer. Ed.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS the following case appears to be strongly illustrative of the observations lately published by Mr. Abernethy, on diseases resembling syphilis, the importance of which must be obvious to every one; I have thought it worthy of publication. If you are of the same opinion, you will, by inserting it in your valuable Miscellany, oblige,

A CONSTANT READER.

J. H. a young man of a sanguineous temperament, and apparently of a scrophulous habit, applied to me the latter end of February last, for the cure of a venereal sore throat. On enquiring into his case, he assured me that he had had no primary symptoms whatever. He informed me, however, that, about ten months previous to this attack, he had undergone a mercurial course for the cure of a suppurating buboe and sore throat, which had been preceded by chancres. At the time the mercury was left off, the buboe had not healed, having degenerated into a fistulous sore, which, however, had quickly healed on being laid open, and from that time he had remained perfectly free from every symptom of syphilis till he had occasion to apply to me. On a stricter enquiry as to the symptoms preceding the affection of his throat, of which he now complained, I found that he had felt a slight degree of irritation about the glans penis a few days after coition, attended with a very slight discharge from the orifice of the urethra, which ceased almost immediately on washing the parts with cold water. This was succeeded by some degree of stiffness and uneasiness in the groin, which had been before affected, and in which a little fulness and hardness had been perceptible ever since the healing of the sinus. This affection of the groin, however, was so slight, as not to give him any alarm; and there being not the slightest appearance of chancre, he did not apply to me till his throat became sore; on looking into which, I discovered an ulcer on the right tonsil, which had all the characteristics of a venereal sore, viz. a circumscribed hollow sore, the bottom covered with a white slough, and the surrounding edges much inflamed. The situation of my

patient

patient being such, that he could not, without the greatest inconvenience, rub in mercury, I began by giving him hydr. muriat. gr. ⅛ ter quotidiè. Under this treatment the ulcer in a few days ceased to spread, and in little more than a fortnight was completely healed. But being unwilling to trust to this remedy alone, and also conceiving that, since he had no primary symptom, this affection of his throat might have been owing to some syphilitic virus, which had long lain dormant in the system, till called into action by the irritation of the glands abovementioned, I strongly recommended to my patient a further continuance of the use of mercury, to which, having suffered but slightly from it, he readily consented. I therefore gave him the pil. hydrarg. in such doses as to keep the gums slightly affected for five weeks longer. Having now undergone a two months course of mercury, I thought he might safely leave it off, and advised him accordingly. But within forty-eight hours after this, he began to complain of his throat again, which appeared considerably inflamed. Attributing this to an improper exposure to cold, while still under the influence of mercury, I contented myself with giving him a gargle, and desiring him to keep his throat warm. In a few days he again applied to me, and told me he thought there was an ulcer in his throat; and, on examination, I discovered one on the left tonsil, less circumscribed, and more superficial, than the one which had appeared on the right tonsil, but still having the white slough at bottom, and the inflamed edges characteristic of a venereal sore. I had again recourse to the hydrarg. muriat. which not appearing to produce any effect upon the sore, I gave the pil. hydrarg. so as to affect the mouth considerably. Still, however, the ulcer shewed no symptoms of amendment, nor did it spread; but above it two other ulcers broke out, about the size of a small pea each, but without the venereal character. I now began to have some doubts as to the nature of this affection, and had almost resolved to leave off the mercury, and put the patient upon a course of sarsaparilla, &c. when, as the mouth became more affected, the smaller ulcers healed. The original one, however, continued nearly in statu quo; and, at the same time, a great deal of scurf began to collect about the roots of the hair. I therefore continued the mercury some days longer, when I happened to meet with Mr. Abernethy's valuable work. The perusal of this, determined me to leave off the use of mercury immediately, and trust to nature for the removal of these

 apparently

apparently syphilitic symptoms. For near a month the ulcer in the throat underwent no alteration; and, during this time, two small ulcers, similar to the ones above described, broke out, and healed again in a few days. It is now upwards of two months since the mercury was left off, his throat is quite well, the roots of his hair entirely free from scurf, and he has shewn no other symptom whatever of any syphilitic taint remaining in the habit.

The above case suggests some very curious enquiries. Was the ulcer, which first appeared in the throat, venereal or not? If it was, how did it arise? Is it possible for the venereal poison to be absorbed into the system so as to produce secondary disease, without having first excited local disease, as chancre or bubo? Or, might the ulcer have arisen from virus, which had lain dormant in the hardened glands since the healing of the sinus in the groin, which the stimulus produced upon the glans penis by coition, and communicated to the absorbents of the groin, had excited them to take up into the system? Or, did all these symptoms arise from acrimonious matter, not venereal, as supposed by Mr. Abernethy, communicated during coition? There is every reason to conclude, although the short space of time elapsed since the mercury was left off will not allow complete certainty upon this head, that the ulcers which appeared in the second instance were not venereal; and hence we may be led to doubt, whether the first affection of the throat was so, although it so readily disappeared under the use of mercury. These are enquiries of great importance, and deserve the attentive consideration of those who are more equal to the task, than the author of these observations.

Sept. 6, 1804.

To the Editors of the Medical and Physical Journal.

Gentlemen,

As any thing which relates to the improvement of medical science is readily admitted into your publication, possibly you will insert this from a constant Reader of your communicative and useful work.

Being one of the medical profession, and constantly anxious to cultivate that science in the most proper manner,

ner, much of my time has been occupied in ascertaining this point.

I am at present a young man, lately settled in practice, after having studied with the greatest assiduity Physic, Surgery, and their necessary branches, in London and at other places, for a considerable number of years, and have now in particular a great propensity to *read* every publication relating to my profession, from which intelligence may be gained. I am convinced of the truth of the old observation, "Est modus in rebus,' and wish to act as influenced by it. I have frequently endeavoured to prove the propriety of reading medical works, in conversation with different men of my profession, and as frequently almost found them ready to oppose me; suffer me, therefore to make a few observations relative to *reading in particular*, as one mode of instruction.

The general objection started against reading, is, that it is likely to make a man an unsteady practitioner or a theorist. This savors too much of the natural disposition of the English, who had rather follow the tracks of their ancestors, than endeavour, by theory and experiment, to improve a science which, from a due observation of facts, might daily be brought nearer to perfection; as a wise author justly observes,—"Prejudice often prevents men from seeing the truth, though it stands before them."

Reading without theorizing, I consider as but of little use; and I am sometimes inclined to think, that those who declaim against it, are too idle to think or to arrange important matter which might be acquired from reading, so as to retain it, and apply it when necessary; thereby verifying the old proverb, "Quod volumus facile credimus."

An elderly man perhaps will say, When I was young, I read much, paid great attention to what I read, and if I met with any new medicine, or any new mode of treating a disease, recommended, I gave it a trial; but finding them in time give place to other new doctrines, I went back to my old plan, and so have proceeded for years. This was language really made use of to me by a respectable practitioner, considered eminent by the people among whom he resided. I am vexed to meet with old professors conversing in this way to students, because I am convinced it will lead many young minds astray, if too much impressed with the opinion of men who have become idle with old age.

Mr. John Hunter is generally brought forward by some, as an instance of an eminent man who read but little; but

but it should be at the same time remembered, that he was a man of strong natural abilities, such as few possess, and of intense thought.

I would only ask, how it is possible the practice of a medical man should keep pace with the improvements of his profession, where he resided in the country, without reading? One of the most useful kinds of reading, I consider that of reading periodical publications like the Medical and Physical Journal, for the papers in this work, be they ever so disinteresting, are not of sufficient length to occupy much of the reader's time; and, in general, are so well selected as to convey much intelligence, and to lead the reader into a train of ideas upon a variety of subjects, from which great benefit might arise, and which otherwise would have been neglected. I am convinced much more might be said in favour of *reading*; but I do not wish to occupy much of your paper, trusting that some one of your Correspondents, more competent than myself, will favour the public with some further remarks on this subject, or point out his objections to these of

September 6, 1804. JUVENIS.

To Dr. BATTY.

Sir,

In your Tenth Volume, p. 410, is inserted the Case of Miss V. The following is the result of that extraordinary case, which will probably prove acceptable to the Readers of the Medical Journal. I am, &c.

W. M. THACKERAY.

Chester, October 18, 1804.

On December 20, 1803, Miss M. V. felt a trifling oppression at her chest, accompanied with flatulency and pain.

On the 23d, She took her powder (pulv. gratiolæ ℈ß. pulv. zing. gr. v. 2dis horis per tres dies) which though operating violently, so far from relieving the oppression, seemed rather to increase it, and her rest at night was disturbed by a gnawing pain in her limbs, differing materially from the spasms, but which generally precedes them.

On

On the 25th, In addition to these symptoms, her hand was closed with the cramp, which was relieved by immersion in cold water.

On the 26th, She took a dose of calomel; every day the sensation of weight became more oppressive.

On the 28th, Her mouth, throat, and tongue were attacked by a severe spasm; instant relief however was obtained from the cold water.

On January 6, The flatulency and pain continuing, she tried once more the gratiola powder; it failed of affording its wonted relief. The oppression now became almost insupportable, and a sensation of violent pricking attended it, which was momentarily mitigated by either brandy or wine.

On the 8th, (as had been the case for many preceding evenings) About ten o'clock, violent pain and flatulency came on, when brandy and ætherial drops were ineffectually administered. About two in the morning she was apparently easy and composed for sleep, when suddenly she complained of an inability to move the right arm; this want of sensation immediately extended itself to that whole side, and ere she could close her description of this partial suspension of feeling, the half articulated sound died on her lips, and every effort was made (ineffectually) to restore animation. The whole frame assumed and retained, whatever form or posture it was placed in; even those attitudes that, in health, are thought most painful long to continue in; her breathing was free, and her pulse regular, though low, till a few minutes preceding her recovery, when it fluttered violently. A transient shivering now agitated her whole frame, and with a sudden and convulsive sigh she opened her eyes, as if awaking from a deep sleep, and complained of extreme weariness and languor. During the night she several times relapsed into this state of insensibility.

On the 9th, Though low and nervous, she sat at dinner with the family, from which she was called before the cloth was removed, to Mr. Cartwright. She complained to him of the oppression, &c. and declared her firm conviction that she was going to have a serious attack. While conversing with him, apparently free from pain, she suddenly ceased to speak, her unclosed eyes became fixed, and her person, retaining its erect position in the chair, seemed transformed into a statue, only that her pulse beat regularly, and her skin was of a comfortable warmth. Mr. C. ordered her in this state to be put under the shower-bath, which

instantly

instantly restored animation, but excruciating agony succeeded in her head, stomach, bowels, and limbs; occasional delirium, violent shivering, and during the paroxysm (which lasted nearly sixteen hours) relapsing several times into insensibility. She took eighty drops of tinct. op. and a musk draught, as well as a large quantity of brandy; but without any sensible benefit. The anguish in her stomach continuing, Mr. C. directed tobacco steeped in brandy to be applied as a poultice to her stomach. It seemed to afford a trifling alleviation of the spasm, but its subsequent effect was truly alarming; a death-like sickness supervened, accompanied by violent straining to vomit; she had cold and clammy perspiration, and her countenance was pale, livid, and distorted. She repeated, while delirious, long pieces of poetry with emphatic propriety, marking the passages that were peculiarly striking with an increased energy of enunciation, and occasionally observing on them with discriminating judgement.

The next day she appeared extremely debilitated, and at the usual hour at night, similar sufferings commenced, attended with a dejection of spirits, as unusual as distressing. The shower bath was had recourse to four times, and it never failed of affording relief, though sometimes the benefit was more apparent, sometimes more permanent, at other times merely transitory, the spasms returning a few minutes after emersion.

Wednesday night was ushered in by sufferings still more acute: for nearly three hours she was deprived of her speech; her head, stomach, and limbs were violently convulsed; then animation seemed wholly suspended, and her tortured frame, unequal to the struggle, bore every appearance of immediate dissolution. I now ordered her beverage to be iced, and large lumps of ice to be brought for trial; her teeth for some time had been fast closed, and by holding the ice a few seconds on her lips the muscles gradually relaxed. As if guided by instinct, she seized the ice, and rubbed her face, neck, and arms with it, signifying by gesture the ease it afforded. We then laid a piece on her stomach; the effect was as salutary as instantaneous, though, on its removal, the bowels again immediately contracted. We persevered in putting pieces of ice into her mouth, as the former ones dissolved, and finally had the satisfaction to find this experiment crowned with success; as it restored her speech, the deprivation of which had so greatly alarmed us.

The next night the paroxysm commenced about ten o'clock;

o'clock, we then put her under the bath, and afterwards gave her 100 drops of tinct. op.; dreadful spasms succeeded in every part of the body, more especially the stomach and bowels, alienation of mind, suspended animation, in short, every symptom of this strange disorder. In the space of one hour we gave her 300 drops of tinct. op. with manifest advantage. The anguish seemed mitigated, and notwithstanding the delirium continued, it was unaccompanied with horror or distress. She held an imaginary conversation with a female friend, rallied her foibles with wit and spirit, exemplified her arguments with anecdotes, directing her voice, look, and action to vacuity. During four hours she took nearly 500 drops of tinct. opii, and was four times under the shower-bath.

On Friday evening her complaint returned at the usual hour, though the spasms were much less acute. Her stomach was greatly relieved by a strong assafœtida draught. She had long intervals of apparent cessation from pain, during which she not only repeated from various authors, as was her wonted practice, but attended to, and answered questions and observations that we put to her, with so much judgement, discrimination, and rationality, that, but for the peculiar turn of her countenance, unusual energy of her manner, and the total absorption of her mind in the subject that occupied it, (for though she would reply to any observation on that, with perfect precision, it was wholly impossible to turn the current of her ideas into another channel) we should scarcely have suspected in her any alienation of mind. Suddenly she ceased to speak, an universal rigidity pervaded her whole frame, and in about a quarter of an hour she uttered several sentences in an under tone of voice, like one who talks in his sleep, though articulately; she then began to be violently convulsed, and during the space of half an hour she seemed to suffer the extreme of torture. In this state we had her carried under the bath, which instantly restored her to ease and recollection. This night she took 400 drops of tinct. opii.

To the present period, Feb. 13, she has had no return of spasm, and is now able to walk two or three miles without the least fatigue. The shower-bath is continued every morning, and occasionally repeated in the evening.

P. S. I was in Shropshire last month, and saw my patient perfectly well. The young lady intends to persevere in the use of the shower-bath the whole of the approaching winter.

Case of Poison from a Vegetable Fungus; *together with Remarks on Professor* Rossi's *two Cases of* supposed *Rabies Canina; by* Samuel Argent Bardsley, M.D. *Physician to the Manchester Infirmary.*

(Continued from our last, pp. 385—391.)

TWO or three days after the accident,* I requested Dr. Hull, (whose botanical knowledge is well known, and justly appreciated) to accompany me with my patient, and his companion, to the spot, where they had gathered and eaten the fungus. We found, in different states of growth, a species of agaric, which the children immediately pointed out as the one they had partaken of. This species is certainly different from any of those enumerated as poisonous by Plenk and Balliard.

The *agaricus bulbosus*, of Sowerby, (plate 130) approaches the nearest to it of any which Dr. Hull has ever seen. The sensible qualities were not such as would lead one to suspect its poisonous nature. Its juice was neither milky nor acid. In smell and taste it was not very unlike the common mushroom, or the kernel of an unripe hazel nut.

The following description of this agaric will perhaps enable some botanical reader to decide, whether the fungus be an undescribed species, and may tend to prevent the bad consequences arising from eating it in future.

Description of the Agaric.

Stalk central, solid, bulbous at the base, gradually attenuated upwards, curved, ascending; brownish buff; length from three to four inches; diameter at the base from half to three-quarters of an inch; ring cobweb-like, or wanting; no wrapper.

Pileus brown buff, darker in the centre; somewhat convex, slightly bossed, margin turned in; diameter from one inch and a half to four inches.

Gills buff, somewhat decurrent, giving a scored appearance to the stalk, as low as the ring, or remains of the curtain; very numerous, four in each series, two of the

---

* These additional Observations of Dr. Bardsley were intended by him to have been given in his Paper which appeared in the last month's Journal; but from accident, they were not received until his first Communication had been sent to press. Edit.

the loose gills very small, the middle one extending more than half way to the stalk.

THE second case of *supposed* canine madness, recorded by Prof. Rossi, is scarcely deserving any comment. No one symptom characteristic of the disease is stated to have made its appearance. The patient had been bitten by a dog, said to be rabid; and the uneasiness and dread of danger arising from this accident, naturally deprived him of sleep. Opium, instead of alleviating, seemed rather to increase his restlessness. We are indeed told, in vague terms, "that the patient even began to feel an obstruction in his throat;" and that immediately upon this symptom appearing, Prof. Rossi commenced his Galvanic operations, and in fifteen days the patient recovered. Of what did he recover? Surely no one will reply, "of *rabid hydrophobia*." The idea is too absurd to be entertained for a single moment. I mean not by these remarks to deny that Galvanism may possess a salutary influence, in subduing many obstinate diseases. Its merits as a remedy cannot, at present, be duly appreciated. It would appear from Prof. Rossi's representation, that it acts powerfully on the nervous system, and seems likely to prove an useful auxillary in the cure of several diseases, arising from inordinate spasmodic action. But that it is capable of subduing *genuine hydrophobia*,* remains yet (unfortunately for mankind!) to be verified by experiments, conducted with impartiality, ability, and accuracy.

Manchester, October 11, 1804.

To Dr. GILLESPIE.

SIR,

I Take the liberty of sending you three cases, which I request you will have the goodness to put into a proper form, and if advisable, to publish them through the medium of your learned and respectable friend, Dr. S. Should

* I intend soon to publish the History of a fatal Case of Hydrophobia, with the appearances upon dissection, (the case I have already alluded to) in which it will appear, that *Galvanic shocks* were tried *in vain*; together with the exhibition of large doses of the volatile caustic alkali, and cantharides, in substance.

they be deemed of any importance, it will encourage me to send you occasionally upwards of one hundred and sixty other cases; many of them extraordinary ones. *It has generally been a received opinion that the Indies are unfavourable to surgical operations,* but I can with great truth contradict it, having performed most of the operations we are acquainted with, to the number of one hundred and sixty-five in this Island, and being fortunate enough to lose only six of that number. I have never met a case of tetanus in my practice, but one, which yielded to the cold bath, bark and wine, with opiates occasionally. The *Lobelia* is a new medicine here, and I became possessed of it very accidentally at St. Croix, about eighteen months ago. My friend, Dr. Stevens, formerly a physician of great *eminence, (see Cullen on Digestion.)* had some plants of it sent from South America in a box; I prevailed upon the person who had charge of it, to spare me one small sprig, which, with much care and attention, I have propagated to a considerable extent.

I am, &c.

P. W. BRODY.

CASES IN SURGERY. *By* MR. BRODY, *of Tortola.*

On the 30th of March, a little boy, about eight years of age, belonging to the Honourable Richard Augustus Teahie, had the metatarsal bones of his right foot shattered, and three splinters of wood wedged between them; in this situation a medical gentleman, who in my absence attended for me, wrapped the foot up, after applying lint and spirit to the laceration. On the following day I had the boy brought to my Hospital; and upon opening the wound and introducing my finger, found splinters, which with some difficulty I extracted, as well as several pieces of bone. The boy had passed a restless night, though an opiate had been given; he had a smart fever and slight delirium. I ordered an aperient mixture, which produced two good evacuations. At noon, the fever still continued, and the parts looked very livid; I took off his leg at the usual place, and upon unscrewing the tourniquet, to my great surprise, not a drop of blood issued from the arteries. I gave him bumpers of Madiera wine, and waited in vain for half an hour in expectation of seeing the arteries, in order to secure them, but could not. He continued feverish for two days after the operation, during which time he took the saline mixture; his body was kept soluble

soluble by injections, castor oil, and a decoction of manna and senna; he had large anodynes at night, but rested indifferently. He could retain no nourishment until the 3d of April. When the dressings were removed, they came away with great ease, and the stump looked healthy and in every respect as well as most I have seen; his fever now left him, his appetite returned, and he continued taking bark and nourishment freely until the 10th of May, when he was discharged cured.

What could prevent the effusion of blood? He lost very little at the time of the accident. He was under no apprehension at the time of the operation; indeed, he was in a state of delirium.

I have since had an operation where the patient died on the 3d day after it. He was an athletic man, about twenty-five years of age, and was wounded on board a privateer belonging to Mr. J. Dougan, the Navy Agent here; from the time he received the wound, which was in his wrist, he became delirious, without fever, and continued so until his death. I had his head shaved and minutely examined, but could trace no sign of injury.

I have sent you a drawing of an extraordinary exfoliation. *(See plate.)* The subject was a Dutchman, aged twenty-five, and sent to me in November last from H. M. ship, Chichester, Capt. Spears, who received him from Barbadoes Hospital, where he had been invalided. I understood from himself he had been sent to the hospital for typhus, and that his head had been blistered, and the integuments sloughed off from all the fore-part. When brought here he was a most dismal object, his sore resembling a cancerous one; wherever any of the corrosive discharge touched, it excoriated and induced a sordid ulcer. I gave him bark, wine, anodynes, &c. I washed the ulcer with a decoction of cicuta, and administered the extract internally to no purpose for two months; the good nourishment and healthy situation proved in some degree serviceable, as his appetite became better and strength amended. About this period I understood he had been afflicted with syphilis about eighteen months ago, which induced me to put him upon a slight mercurial course, the ungt. hydrarg. fort. was used ʒij. every night for three weeks, without producing any effect upon his mouth; the sore still looking very ill with glossy surface full of small holes, from which issued a most fœtid and caustic discharge; at this time the black part of the drawing was quite bare. Being still of opinion that syphilitic virus

was the principal impediment to the cure, I had recourse to a strong decoction of the lobelia (which I have propagated largely in my garden); he took about a quart of it daily. In ten days the wound looked better, the bone became loose, except at the angles, where I was obliged to use the knife to disengage it. About the size of a half crown piece of the dura mater was bare, which I covered with soft lint every morning and evening for about a fortnight, when granulations were formed and the part filled up apace; from that time his health returned, and he was perfectly cured and sent home in the Ulysses.

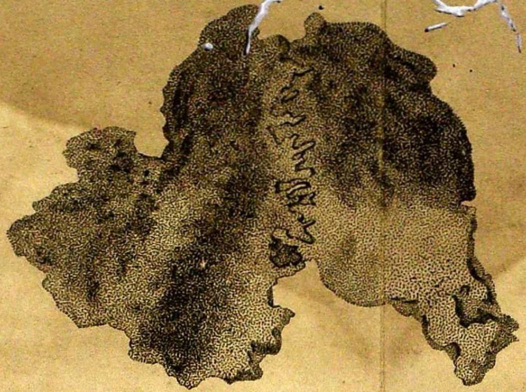
REMARK.—The lobelia may be found to prove a medicine of efficacy in various other complaints as well as in syphilis; the good effects therefore of this simple, in the present case, is far from establishing the identity of syphilitic disease in this instance.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ENCLOSED I beg leave to send you a drawing of a Steam Apparatus, which I suggested might be of material service in the cure of malignant ulcer, in the inflammatory stage; and from the evident success which attended it here during a tedious continuance of the disease of twelve months and upwards, I would strongly recommend the trial of it to all my brother officers in the Navy, who may have such an obstinate complaint to contend with. It can always be used at sea; the only necessary article to be procured on shore is, a leaden tube about six feet long, with a cock in it, as described in the *plate*, by which and the valve on the top of the box, the degree of heat required can be most correctly regulated with the assistance of a small hand thermometer. I found its good effects on many occasions when inflammation was seated on any of the extremities, in removing irritation, abating pain, and relaxing the surrounding integuments. The time necessary to keep the diseased part in the box, I found, was about one hour morning and evening, and the degree of heat about 100; if continued longer, it was liable to produce languor and syncope. Imm[illegible]tely on being removed from the steam, warm emollient poultices were applied

Mr. Brodie's Case of extraordinary Exfoliation. _ p.515.



Mr. Williams' Steam Apparatus. _ p.516. No. 70

A. Common Ship-Stove.

B. Copper Kettle.

C. Leaden Tube 6 feet long.

D. A Cock in it.

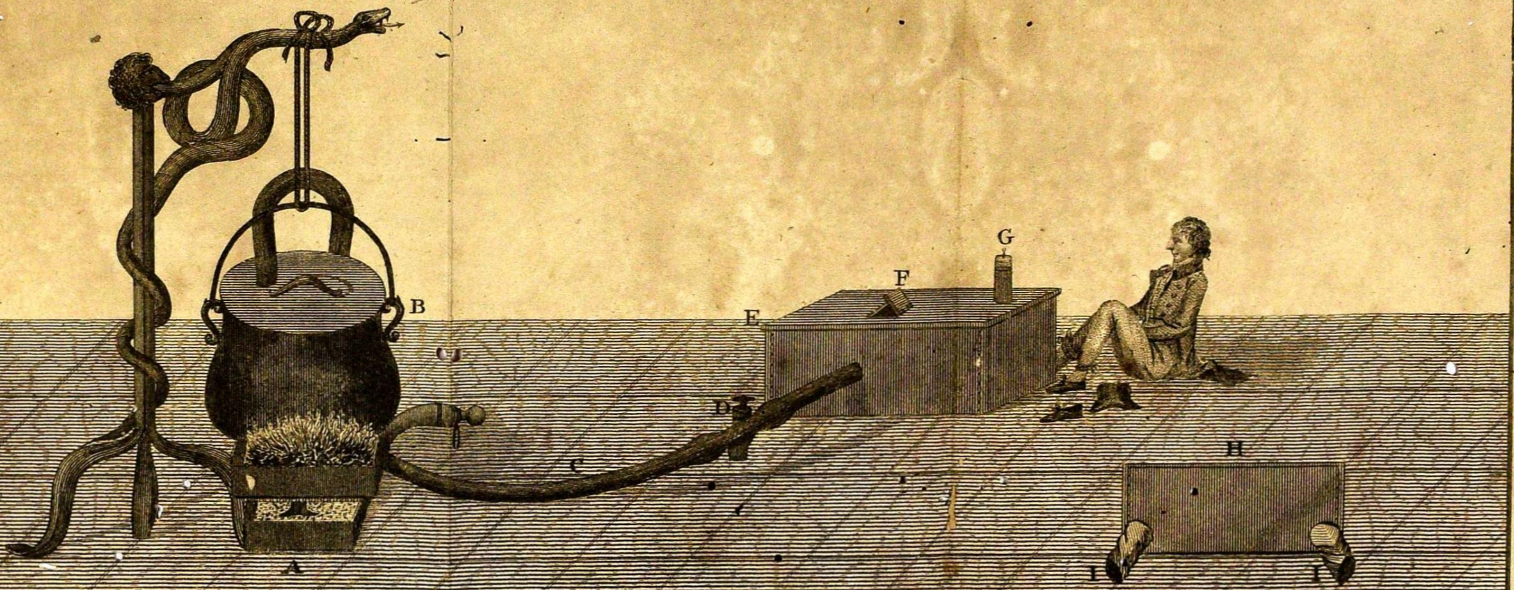
E. A Wooden Box $2\frac{1}{4}$ ft long, 1 foot deep, $1\frac{1}{2}$ broad.

F. A Valve to allow the steam to evaporate.

G. A Thermometer to regulate the degree of heat.

H. A Front view of the Box.

I.I. Two Apertures lined with Baize to admit the diseased limb.



S. Porter sc.

Publish'd Dec. 1. 1804, by Richard Phillips, 71, St. Paul's Church Yard.

applied with a view to assit in promoting suppuration, and which I found, from repeated proofs, to answer fully my expectations, by causing the sloughs to separate much quicker than could be expected, and by that means preventing many denudations and tedious exfoliations of the tibia. I am, &c.

R. WILLIAMS, Surgeon.

H. M. S. Northumberland, off Ferrol, October 30, 1804.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE Cow-pock having given rise to two parties, one of its prophylacticity, the other of its indifference, (which latter party, for the sake of humanity, it is hoped is fast sinking into greater indifference) three partisans also of a classical term for the disorder having arisen, be pleased once more to allow me to intervene between Dr. Walker and Mr. Ring; or, as the former might not disapprove of my expressing myself, to step into the ring, in behalf of VACCÆVARA.

Vara is *not* "a more precise term than the diminutive variola for" the small-pox, (see Dr. W. Medical and Physical Journal, No. 69, p. 440) but it is a more precise term for the cow-pock, because the word variolæ respects the number of small pustules by which the skin is varied in the former, whilst VARA, not a diminutive, may better express the single and large eruption that appears in the latter. Vara *has* taken place in medical language, if the handwriting of a medical man upon a paper of vaccævarous matter, *Vara vaccina*, which I have seen, is any authority. Vara is also as old as Pliny; but variol*a* is still newer than variol*æ*.

Vaccævāra may by use become as euphonous as venæsectio, to which, as a compound, it is analogous. Asseveration, pronounced, by quantity, would be nearly as cacophonous as vaccævāration; but, would any one therefore say, *assiolation*, and because of the similitude of this new coin to an established one? Thus *acceleration* too might be *acciolation*.

Classical minds will respect Dr. W. as a man of abilities; but, classical ears will not be *heifer'd*, if they can help it, with *vacciola*; any more than classical tastes will admit *vaccina* to express a disorder, and thereby to create a disgust against milk, butter, and cheese, those agreeables, of which alone, from the term, they had been accustomed to conceive ideas. But, vacc*ina*, even for the disorder, is much better than vacciola, the former being an established word, while the latter never can be any thing better than

 (verbo

(verbo venia) is a mere barbarism. I do not, however, despair of seeing vacciŏla the *m*umpsimus, that will expel the *s*umpsimus vaccīna; so strenuously is the former protected and promoted.

Dr. W. does me the honor of wishing me to be a compound maker; what thinks he then of *Boūnŏsŭs* (a dactyle and perfectly euphonous) for cow-pock; *bounosize*, to (suppose) *vacciolate* or inoculate; *bounosism*, vaccinoculation; and *bounŏsĕrous*, for *vaccœrārous*, matter? I abide by the decision of the College of Physicians; but, *manum de tabula;* for Dr. W. may be assured, that I am no maker of medical compounds. *Quod medicorum est promittunt medici;*—not, Your's, &c.

Nov. 3, 1804. PHILOLOGUS.

On an Atrophy of the Testicles *observed in Egypt; by* Mr. Larrey, *Chief Surgeon of the Army.*

SEVERAL soldiers of the Army of Egypt having complained of the total abolition of the testicles, without any previous venereal disease; Mr. Larrey, surprized at this phenomenon, endeavoured to discover the cause, and to observe the progress of this singular malady; the results of which are as follow.

Generally one of the testicles gradually lost its sensibility, became soft, diminished in size, and seemed to be exsiccated. The patient perceives nothing of this destruction, which proceeds insensibly, till the testicle being reduced to a very small size, is found near the annulus abdominalis, in form and size of a white bean; then it becomes indolent, and grows hard, and the spermatic chord decreases likewise, and participates of this disease.

When both testicles are affected, the patient is deprived of his generative faculty, which he observes by the total absence of carnal desires and amorous sensations, and by the laxity of the genitals; and this, the author has found to be the case with all that experienced this malady, and which influences likewise the whole system, as it grows also weak; the lower extremities emaciate, and the pace becomes waddling; the countenance is changed, the beard grows thin, the stomach becomes weak, the digestion is impaired, and the mental faculties deranged. Several soldiers became invalids in consequence of this disease.

Mr. Larrey ascribes this malady chiefly to the intense heat of the Egyptian climate, which by relaxing the tex-

ture

ture of the testicle, disposes it to that sort of dissolution; the most fluid parts of this organ go off by transpiration, and another portion is absorbed by the lymphatic system, and brought within the course of circulation. The parenchyma of the vessels, which resist these effects, shrinks, the tubes contract and dry up, the whole mass of the testicle loses more or less in its compass, and becomes emaciated. To this, as a principal cause, may be added, the fatigues of war, and the frequent wants which the troops experienced, but more particularly the use of the spirit from dates, which the inhabitants, in order to make it stronger and more palatable, draw off with the fruits of several solanaceous plants, as the pseudocapsicum, and the common capsicum, both which serve as spices: and, perhaps, says Mr. Larrey, they know it by experience or tradition, that these substances diminish the nervous sensibility, which much easier developes itself in hot climates, and becomes more susceptible of too great a mobility. The author takes an opportunity to remark, that he has likewise observed the paralytic effects of the bella-donna on the organ of sight; and he cautions particularly against employing solanaceous remedies in hot climates. When the atrophy of the testicles is perfect or complete, the art offers no remedy; but when it is only commencing, the disagreeable consequences may be prevented by cold baths, by dry fictions of the body, by urtication applied to the breech, by stomachic remedies, and a full diet.

In order to be secured from this accident, it is advisable to avoid the use of spirituous liquors, and particularly of the spirit drawn from dates by the Egyptians; further, to wear a straight suspensorium, to wash the body frequently with fresh water and vinegar, and to abstain from the sexual intercourse.

Observations on the Inoculation of Blennorhœa, (or Gonorrhœa) *in Cases where this Running is suddenly suppressed, and the Suppression attended with dangerous Symptoms; by* Mr. Larrey.

THE author of this memoir relates several interesting cases, in which he effected a cure of serious maladies by the inoculation of the virus gonorrhoicum, or a weak solution of ammonia in water.

 Obs. I.

Obs. I.* Many of the soldiers, while in Eygpt, were affected with very obstinate ophthalmies, attended with ulcérations of the eye-lids, which had a cancerous appearance. A fetid purulent humour run down, which excoriated that part of the cheek on which it rested, although but for a short time. The cornea was either perforated, or a staphylome appeared, and sometimes the membranes of the eyes received a carcinomatous character. These accidents never manifested themselves but in individuals who had been previously affected with gonnorrhœas. Mr. Larrey employed some general remedies, but chiefly the artificial or natural inoculation of gonorrhœa; the first of which was effected by injecting into the urethra a sufficiently strong alkaline solution, in order to produce a slight inflammation; in consequence of which, a new running ensued, and these gonnorrhœas have constantly removed ophthalmies of that nature.

Obs. II. In other cases, the suppression of these venereal runnings was followed by a copious secretion of the nasal mucus, which, from being in its natural state, without smell, whitish, and slightly saline, became greenish, liquid, and the smell of a gonorrhoic running. The membrana pituitaria excoriated; and when the disease was neglected, the ulceration became chancreous, the membrane was corroded, and the bones were affected. The remedies employed in these affections were nearly the same as those directed for gonorrhœas; but experience seems to prove, that the patient must be also treated with the internal use of mercurial preparations.

Obs. III. Some soldiers were affected with almost complete deafness, attended with vertigo, and very troublesome tinklings of the ear, in consequence of the suppression of gonnorhœa. Injections of different liquors into the meatus auditorius had been tried, and blisters applied in the vicinity, without any effect; on the contrary, the deafness seemed to increase. Mr. Larrey ordered injections of ammonia to be made into the urethra, which produced an irritation sufficient to re-establish the running; and from the first day of this running, the tinkling of the ear disappeared, the patients could hear much better, and distinguish different sounds. The cure was finished by the use of mercurial frictions, and some grains of muriat of mercury united with opium, and taken internally in a proper mixture. Another soldier was inoculated with the virus

* What we term *cases* the French surgeons call *observations*. Ed.

virus of a natural and fresh gonorrhœa, and when the running took place, the tinkling of the ear ceased; a few days after the patient could hear with the left ear, and by degrees was perfectly cured.

Obs. IV. A young lady had all the symptoms of a pulmonary consumption in the third stage; the expectoration was purulent, fetid, and greenish; the difficulty of breath and oppression very considerable. The odour and particular nature of the discharge brought up by coughing, caused the author to suspect the suppression of a leucorrhoic running. Upon inquiry, he found, that at the period when the disease had commenced, this lady had had a running of the vagina, which had been cured by injections of acetated lead and the use of some liquors; and that during the last four years, the breast had never ceased to be affected. Mr. Larrey no longer doubting the cause of this disease, injected a weak solution of volatile alkali at the entrance of the vagina, which immediately produced a considerable phlogosis, attended with a purulent running, which became, in the course of a few days, very copious. After this had continued twenty-four hours, the patient fell into a quiet sleep, without being troubled with cough and expectoration. The pains of the breast gradually abated, and a few days after she had scarcely any fever in the evening. While the running increased, the affection of the breast disappeared, and after a proper treatment, the appetite, force, and vigour of body returned.

Obs. V. A soldier was attacked with a purulent dysenteric flux, which he had suffered several years, and for which a great number of remedies had been unsuccessfully employed. The alvine excretions were frequent, often attended with tenesmus and violent colics, particularly during the night time. The patient was in a state of marasmus, when Mr. Larrey examined him; and learnt, that at the period when the dysenteric flux had commenced the patient had been affected with a gonorrhœa, which he had removed by astringent injections. The antisyphilitic treatment was then employed, and a few days were sufficient to produce a favourable alteration in the tsate of the disease; mercurial frictions on the belly seemed to be particularly serviceable, and he took internally corrosive sublimate. The vigour of his body began to return, and two months after the consultation, the patient attended to his usual business.

Obs. VI. Another soldier, aged 26, of a feeble constitution, was received into the hospital on account of a violent gonorrhœa By the use of sopient antispasmodic remedies

medies, and the application of leeches, the most pressing symptoms were removed, and repose procured to the patient. The running increased, but it was fetid and greenish. Baths were continued, and also the use of a sopient emulsion; and he was directed to take an antisyphilitic potion in the morning. The running, however, remained copious, and continued so a month after his first entrance into the hospital. But about this period the patient imprudently used the cold bath; in consequence of which the running was suppressed, he became feverish, complained of pains in the sides, was obstinately constipated, had a burning sensation in the belly, ardor urinæ, and a great dryness of the skin. The following morning the whole surface of the body was affected with an erysipelatous inflammation, which, running through its stages, terminated on the 9th day in suppuration. This first began on the skin of the hands and feet; the epidermis was detached, and the suppuration so copious, that it required to be dressed four times a day with lint and cerate. The feverish symptoms disappeared, and this disease became rather idiopathic. The matter of the suppuration proved somewhat analogous to that of virulent gonorrhœas; it was thick, viscous, of a greenish colour, and emitted a fetid odour. It issued not only from all points of the skin, but also from the nostrils and cavity of the mouth. This state of general ulceration occasioned the greatest pains to the unfortunate patient, and he could not repose himself in any kind of posture. For more than a month after using the cold bath, ulceration had been as copious as general; during which period, exsiccatives had been applied, but the crust thus formed contained under it a greenish matter; the hair fell off, the nails were disorganised, they became thick, scaly, rough, and dark yellow. Mr. Larrey determined to put an end to this miserable state, by making injections into the urethra with the pus taken from the hands and feet; and the gonnorhœa soon appearing, the general suppuration diminished. The dressings with ceratum Saturni, and wine mixed with honey, were continued, and the patient took internally a sudorific rob with a little muriat of mercury, of ammonia, opium, and ether. The suppuration continued longer on the hands and feet than on the rest of the body, but at length the whole skin healed; and when no ulcerations were any longer perceived, Mr. Larrey ordered mercurial frictions to be applied every three or four days, and the use of baths. Towards the end of the treatment a bubo appeared, which opened of itself; the nails were reproduced; and the

the patient left the hospital perfectly cured, five months after he had entered it.

Obs. VII. A soldier was sent to the hospital on account of a virulent gonnorrhœa, which he had had a few days. The matter that issued was greenish and fetid; he had violent pains the whole length of the urinary canal; the urine passed with difficulty, and with an insupportable burning sensation: the erections were frequent, and he was feverish and restless. By the use of sopient mucilaginous potions, baths, and very small dose of corrosive sublimate taken with milk, the symptoms greatly diminished, and the patient, complaining of nothing but the running, desired to be discharged from the hospital.—Some time after, this soldier, desirous of freeing himself from the running, took the advice of a quack, used the cold bath, and introduced into the urethra bougies covered with mercurial ointment. The gonorrhœa immediately ceased; but soon after a violent pain supervened in the right thigh, which obliged him again to have recourse to the hospital. The pain extended itself to the extremities, and last to the articulations of all the members, which became stiff and completely motionless. A fever afterwards supervened, attended with symptoms of mania. Mr. Larrey endeavoured to remove the most pressing complaints by venesection at the vena jugularis, by antispasmodic potions, pediluvia, and sinapisms applied to the soles of the feet; and though he succeeded in appeasing the disorder, the general pains remained almost the same. At length an injection of gonnorhoic liquor into the urethra was tried, by which the running returned; and as this became more copious, the symptoms diminished in proportion; so that after a fortnight they entirely disappeared. This second gonorrhœa was treated with mercurial preparations, in combination with antispasmodics. All the symptoms were gradually removed, and he left the hospital perfectly cured.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Was much pleased the other day by the perusal of an observation made by Mr. Cuming, on the treatment of erysipelas, in your last valuable Journal. On account of its

its according so exactly with the plan I have been in the habit of seeing pursued, and myself adopting to a very considerable extent for the last five years; I allude to the practice of applying cold lotions in this disease, and to those more particularly which appear about the head and face, where we ought, as soon as possible, to check the complaint, particularly in females, in consequence of its so frequently disfiguring them. Mr. Cuming very justly observes, the celebrated Cullen conceived the practice to be injudicious, and recommended the principal reliance to be placed on flour; but from what I have seen of the disease within the time before mentioned, and which has not been merely a few solitary cases now and then, I am confident that this plan is by no means the best; for I do not recollect one case where the application of cold lotions were early and properly applied, but it prevented suppuration and all its ill consequences, not only in the head and face, but the extremities: in the former I have used it very freely and repeatedly, when the inflammation has run extremely high, both locally and constitutionally, and I never once found by repelling it that either phrenitis, peripneumony, angina, or any unpleasant complaint followed; indeed, to me, the propriety of their application appears very obvious, upon the simple principle of checking that inflammation, which, if allowed to go on, would probably extend to the brain, or some other important part, and in this way prove fatal. The lotion which has been used so extensively in the practice I have had an opportunity of attending to, has been the aqua. aluminis composta (P. L.) and which I think is preferable to the cerussa acetata, on account of its being a better tonic; the other I conceive to be more applicable to those kind of inflammations which more particularly require sedatives.

In a case which occurred about twelve months back, and which was particularly bad, the face being so much disfigured by the swelling as for the man's friends not to know him; he, from the first of my visiting him, used cold applications to the part; his bowels were kept open, and saline medicines administered, as the febrile symptoms seem to indicate, and he got perfectly well. This man would not bear bleeding: indeed, I have generally found, that if phlebotomy is performed in the early stage of this disease, although the inflammatory symptoms run pretty high, the patients seldom do so well as if it had been omitted; for, after it, I have almost constantly found the pulse

pulse has gradually sunk, and the part put on that degree of sluggishness and livid hue, as to require a very different mode of treatment to that adopted at first; but I dont mean to say, that because this is the case very frequently in a large town like this, that it should be so in the country, where I believe venæsectio very generally becomes necessary in the treatment of this disease, and for two very obvious reasons. First, the lower class of people here (and amongst whom my practice is principally confined) live chiefly on gin, porter, and tea, and take very sparingly of animal food; and, secondly, their living in a large city where the air cannot possibly be so pure as if they resided many miles from it. This then I think will very satisfactorily explain why, in this respect, the plan of treatment here and that in the country may very properly, somewhat vary. It is a very common circumstance to find that erysipelas in the face and other parts, if considerable, will leave an œdema with a scurfiness, which was the case in the man whose case I have just mentioned; but it was entirely taken away, by giving him a grain of calomel every night, and the cortex in the day. This practice is generally adopted under such circumstances, and commonly proves amply sufficient.

Surely then, if a disease so very troublesome and indeed formidable, as erysipelas, can be checked, and suppuration prevented by this mode of treatment, and that without any risque to the person's general health, it is a very cogent reason for adopting it. We are told by that ancient writer Hippocrates, that a suppuration and sloughing of this kind, is of a very serious nature; yet he was by no means an advocate for repellants under such circumstances, for in his Aphorisms, he says, if there is a metastasis of the morbific matter from within, outward, the habit will be relieved, and the patient recover; but the sudden return of a humour inward is a bad sign, and imagined some formidable disease would be brought on in consequence. But their constant application proves this is not the case, also the advantages derived by their use to be very great, and the danger merely imaginary, that I hope, ere long, they will be universally employed; and I am sure no practitioner, who is anxious for his patient's speedy recovery, (and which, I have no doubt, is the case with every one) would, after employing it once, ever again, under similar circumstances, omit using it a second and indeed for ever after; for, as I have before stated, it prevents, if early employed, any serious mischief coming on. Whereas by sprinkling

sprinkling the part with flour, using soft emollient fomentations and cataplasms, &c. we very often find the inflammation continues to remain, the part suppurates and sloughs, and instead of curing your patient in a few days, or at farthest in a week or fortnight, he is confined for many weeks or perhaps several months.

I am well aware that many, and indeed most, modern practitioners will object to the treatment of this disease in the way I have mentioned, and will say, it is obvious that every thing which can occasion a retrocession of the morbific matter from the surface of the body must prove injurious, and therefore they contend every erysipelas should be encouraged, for that, in proportion as the external inflammation advances, does the fever subside. This argument may do extremely well to serve the purpose of the theorist, when discussing the subject in a medical society; but if he will turn his attention only a little to the practical part of his profession, and observe minutely and impartially the effects of the plan proposed, I am sure he will soon be convinced of the false grounds upon which his arguments are established.

Sometimes, and indeed not very unfrequently, in consequence of the inflammation being very great at first, and the part entirely neglected, suppuration will come on, which generally is of a phagadenic and gangrenous kind, (very seldom proving favourable) the best application, under such circumstances, seems to be the strong beer grounds and oatmeal, with bark, opium, and wine internally; and for those whose circumstances will not allow them to get the latter, porter will be found no contemptible substitute; during the separation, the sore may be sprinkled with a powder composed of equal parts of the pulv. gum. myrrh, and lap. calaminaris; or instead of the latter, the cinchona may be employed, and over this the poultice is to be laid. All greasy applications are to be avoided, more particularly in the early stage of the disease, for they will invariably be found prejudicial. When the part has become perfectly healthy, the poultice is to be discontinued; but frequently the use of the powder may be persevered in with considerable advantage, and over it dry lint and a common pledget, and commonly this will be all that is necessary to complete the cure.

I embrace this opportunity of mentioning the good effects I have seen, from giving the zincum vitriolatum in the cure of intermittents, and which medicine I was induced to employ from the recommendation of the gentleman

man whose name I have before mentioned. I have only had an opportunity of giving it in two cases, the first of which was a remarkable obstinate one, and had bid defiance both to the cortex and solutio arsenici; indeed, the subject was a very unfavourable one, for he had repeatedly laboured under the same disease while abroad as a soldier; he had also been a hard drinker of spirits, by which his constitution had been much shattered. Under these unfavourable circumstances, I began with the above medicine, and persevered in its use in the manner directed by Mr. C. and I am happy in saying the man had not one paroxysm after its first administration. The other case was of a much milder type, and the subject by far more favourable in every respect. In this man, I began with it from the first, and it answered my most sanguine expectations; indeed, I have much pleasure in acknowledging that I always feel great satisfaction, and receive considerable improvement, by the perusal of the above Gentleman's very valuable practical observations from time to time, and which, I trust, he will afford me frequent opportunities of repeating,

I am, &c.

London, Nov. 12, 1804. ROBERT COOKE.

To the Editors of the Medical and Physical Journal.

Gentlemen,

It is incumbent on me to observe, that the air-pump water-bath, although unknown to me, had certainly been suggested to *remove poisons* from the surface of the body, before I sent in my last communication; I, therefore, claim no more merit respecting the mere hint which I laid before you, than this, that, where a common *air-pump* is at hand, any other kind of vessel, furnished (in a manner that needs no description) with a proper *stop-cock*, may possibly prove always successful, if *instantly* applied.

To do justice to the author, I shall quote the following passage from the work itself.

" It may not a little surprise some of my readers, that I have not expatiated on the efficacy of the apparatus in the removal of animal, vegetable, and mineral poisons recently applied to the system; especially, as the extraction of

of poison from a wound originally gave rise to the invention." (See Dr. Blegborough on the air-pump vapour-bath, p.136.)

The whole of my last short, and, I confess, very hastily written letter, was composed in a *conditional* sense. Nothing in it amounts to an assertion; the whole was meant to be, and, I am confident, will be found to be, merely *recommendatory*; I cannot, therefore, either retract a single syllable, or answer any *public* question respecting its contents.

I know my letter has been most miserably garbled. A studied exordium with "*no errors should be permitted to pass unnoticed; the wide ocean of medical science; the dangerous rocks; wild and extravagant fancies; speculators in physic, &c.*" must prepare the reader to give credit to the author, and to follow him implicitly, if nothing be questioned respecting the text.

I have not the least doubt but that whoever has read the comment upon my letter, must suppose that I expect complete success from the application of a cupping-glass, even when the *barking, biting, anxiety, fever,* and *dread* of *swallowing* are hastening the patient to his grave. This would indeed be an *immediate cure*.

The commentator must have seen what I meant by the general tenor of the whole letter, besides this sentence, "*the moment* an accident of this kind has happened is *evidently* the only period to apply the glasses with *any prospect of success*."

The patient *cured* by the commentator does not appear to have been diseased, or the puny history must be defective. It does not appear that the *pointer* dog was really capable of communicating *hydrophobia*, for the animal, with all the *unequivocal* symptoms, did not die *of the disease*; perhaps the poor creature was shot, or hanged and quartered, and then can tell no tales.

Amongst some other remarks, which deserve to be studied, I observe in the same number of the Medical and Physical Journal, p. 387—391, that Professor Rossi was deceived, and why not also our commentator? Another may also be seen, of two examples of "persons dying under *hydrophobic* symptoms from *biting their own fingers*, in a paroxsysm of *anger!* How opportunely these observations occur in the self same Journal; they appear not only as a *preventive* but as an *immediate cure*.

I observe some singular opinions respecting the *double* effect of alkali, which I could not comprehend, but on

which

which one might have said more than would be palatable; perhaps animal poisons are *acids*: if so, here is a new field opened to the chemist, if he be not afraid to "turn his mind to surgery." But, "*ne ultra crepidam.*"

I have considered, that to contend with a competitor so powerful would be madness. What chance could I expect, to wrestle with a physical Hercules? with, not only a member of the Royal College of Surgeons, London, but who can add the strength of an apothecary, of a man-midwife, and of a vendor of drugs, chemicals, &c. to whatever besides he may desire to possess!

The compliment paid to me on some observations, which appeared in your Journal for May and July, I cannot accept—the donor can be no very perfect judge of *nomenclature*, who confounds *calx cum kali puro* with what is *commonly called lapis infernalis*. How far this accords with "preparing prescriptions with accuracy," I leave to the judgement of others.

I am, &c.

Long Acre, Nov. 14, 1804 JOS. HUME.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the last Number of the Medical and Chirurgical Review, the account of the Kensington case is considerably corrected. It is there acknowledged, that Mr. Cullurne never saw the patient after the fourth day; and I have the authority of that gentleman for asserting, that he did not form any decisive opinion on the case; on the contrary, he desired the child might be brought to him again for this purpose.

The author of the account in the Med. and Chir. Review confesses, that Mrs. Meredith prevaricated in her evidence, and endeavours to reconcile it to reason by saying, that she was *minutely* and *unexpectedly* questioned on points of some nicety, with which she must be supposed not to have been familiar. The public, however, will judge whether this is not the best mode of eliciting the truth; and it must be recollected, that during the first examination, she positively asserted the colour was not black, and persevered in that assertion.

It was an easy matter for her afterwards to learn what the colour of the cow-pock scab is, either from conversation with her numerous visitors, some of whom were not very friendly to vaccination; or from some vaccine patients in the neighbourhood, whom she repeatedly saw about that period.

In the account alluded to, the most material circumstance is artfully suppressed; namely, that the pustules were rubbed off within a few days after their appearance. "On the above evidence," it seems, lame and imperfect as it is, "the public may judge for themselves," whether the patient had the cow-pock. It is easy to conjecture, what opinion the author of the article alluded to wishes the public to form; but they will be cautious how they believe one, who has already tried to deceive them. *Stulto non creditur etiam verum dicenti.*

A person, *assuming the style of an Editor*, in the same number of the Medical and Chirurgical Review, affects to *fear*, what he evidently *hopes*, that the cases which have lately occurred, will induce many families to prefer the inoculation of the small-pox to vaccination. This person, who is probably the same that drew up the false account of the Kensington case, appears to be envious of the well-earned fame of Dr. Jenner; and anxious to pluck the laurels from his brow. He would sacrifice vaccination to accomplish his purpose. He thinks vaccine inoculation cannot be established by Dr. Jenner, and a few of his adherents. He thinks Dr. Jenner's adherents are *interested*. They would, however, have given greater reason for that reproach, if they had been so mean as to sell cow-pock matter.

This Writer, and a Reviewer in the same work, have drawn a conclusion rather unfavourable to vaccination from Dr. Rollo's report of experiments at Woolwich. From the same premises, a Reviewer in the Medical and Physical Journal has drawn a favourable conclusion. Having been requested by Dr. Rollo to observe the progress of those cases, I deem it incumbent on me to point out an inaccuracy in his statement.

When I received from Dr. Rollo a letter mentioning the alarm created in his mind by the effects of variolous inoculation on those whom he had before vaccinated, I wrote to him a letter expressive of my opinion, that his alarm would prove groundless. Mr. Knight, to whom Dr. Rollo also applied, wrote to him an answer to the same purport.

When

When I waited on Dr. Rollo, I remarked to him and several other gentlemen present, that the local pustule of the patients under the test of variolous inoculation was different from that which takes place in persons who have not had the cow-pock or the small-pox; and that it was not surrounded by a cluster of pustules, as it is in those who have not undergone either of those disorders.

This remark was not controverted at the time; I could not, therefore, but be rather surprised at seeing it stated in Dr. Rollo's Report, that in one of his cases a cluster of pustules appeared. It is true, the local affection was rather more than common; probably owing to the heat of the weather, and to the parts being much handled.

In order to ascertain with as much precision as possible the particulars of these cases, I wrote to Mr. Butler, surgeon, of Woolwich, whose children were the subjects of two of them; and received an answer to the following effect:

"The arms of these children were frequently examined by medical men, which must have produced some irritation; the children themselves more particularly irritated them by scratching."

Mr. Butler says, there were several pustules near the inoculated part, in Serjeant Gloag's child; and that, when examined with a glass, they appeared to contain *a watery fluid.*

This proves that they were vesicles, the mere effect of cuticular inflammation; a pustule contains pus. It is much to be wished, that medical men would be a little more accurate in their discriminations.

Mr. Butler observes, that he feels it difficult to describe the few pimples, or pustules, which appeared on his own child. "When first noticed they felt hard; and, on the third or fourth day, when examined with a glass, they appeared to contain a small quantity of a watery fluid. None of them were ever so large as those which occur in the small-pox."

Notwithstanding Mr. Butler speaks with so much modesty, I defy the most able nosologist to give a better idea of a miliary eruption. Sauvage says, it is "an eruption of blisters not larger than a millet seed." Linnæus calls it "a round papulous eruption." Vogel describes it to be "pustules of the size of millet seeds, full of serum, which is at first limpid, afterwards whitish, and of a pearl colour." Sagar represents it to be "an eruption of blisters seldom larger than a millet seed." He says, "they remain on

on the skin four, five, six, seven, nine, eleven days, or more, and terminate in fine branny scales." Cullen tells us, it is "a small papulous eruption; and that, in a day or two, a very small white pustule, of short duration, is visible on its apex."

Nothing can bear a more exact resemblance to the eruptions which are continually mistaken for the small-pox; particularly by those who make experiments with variolous matter. In confirmation of this opinion it must be recollected, that matter taken from such eruptions never produces any specific disease. Ex nihilo nihil fit.

Dr. Rollo and Mr. Butler both informed me, that in the cases where variolous matter was inserted as a test, the pustule appeared earlier than usual. The same, it is well known, commonly happens in those who have previously had the small-pox; but to this rule there are many exceptions.

Dr. Rollo, in his letter to me, stated, that he thought his patients going on in the manner described by Baron Dimsdale in his first twelve cases. This was to me a strong argument that they were insusceptible of the general small-pox, and that the variolous inoculation would prove abortive; as it appears to have done in almost every one of the twelve cases related by Baron Dimsdale. That great inoculator has described the effects of variolation in those who have already had the disease; but he did not know how to account for them. This was reserved for Dr. Woodville, and other later authors.

It is now well understood, that the early efflorescence, and the premature pustule, such as are to be met with in the works of Baron Dimsdale, Mr. Goldson, Dr. Rollo, and others, are nothing more than the mountain in labour; and they would probably terminate in the same manner, did not the troublesome itching attendant on such cases provoke the patients to scratch their arms, and curiosity tempt practitioners to press them; hence a train of local and general symptoms in proportion to the injury received.

In Dr. Rollo's two first cases, there was an efflorescence round the puncture, about the size of a sixpence, on the second day. In the third case, the elevation and inflammation of the arm were still more remarkable than in the two former. On the eighth day the inflammation nearly extended to the elbow, and upper part of the arm; and over the whole side. It is no wonder the child was *feverish;* and, although it had no eruption, it may be said to have

have escaped as through fire. So far is the variolous test from being a matter of indifference, as some people pretend.

In the fourth case, the child was inoculated with variolous matter in the evening; and by the next morning, his arm was inflamed nearly to the size of a sixpence. He complained of its itching much; and said it was very sore. In the evening the inflammation was greatly increased. On the third day it was still farther increased; and had considerable hardness round it. On the fourth day the extent of the inflammation was three inches by two. The child complained of pain under his arm, and in the evening was much indisposed. On the morning of the fifth day the inflammation was abated, and the child much better. This was one of Mr. Butler's children, part of whose case has already been related. Several of the vaccine patients whom Dr. Rollo inoculated with variolous matter, were affected with general indisposition; reasons for which may easily be found in the violence of the local inflammation.

In the fifth case there was a considerable inflammation on the arm by the next morning, and it increased till the fifth day. On the ninth day it again increased considerably, attended with all the symptoms of fever, and a convulsion. Some small eruptions appeared near the inoculated part; but none that could be called pustules; otherwise matter would have been taken from this child, as it was from his brother, although it proved ineffectual for the purpose of inoculation.

These are sufficient specimens of Dr. Rollo's experiments with variolous matter after vaccination. Any one who examines the result of his experiments, in children who had not previously undergone vaccination, will perceive a material difference in them. In these cases there was nothing doubtful, nothing equivocal; but an inflammation more tardy, and pustulous eruptions that bore every stamp of the small-pox.

Upon the whole, Dr. Rollo is inclined to think, that the cow-pock is endowed with a power of resisting the small-pox; but Mr. Butler is a more decided advocate for the practice. He assured me, when I was at Woolwich, that nothing had so strongly convinced him of the efficacy of vaccination, as the result of the preceding experiments. In his letter to me he declares, that he has a perfect confidence in vaccination; and thinks it his duty to recommend the practice to the public.

 Dr

Dr. Rollo having excited a local variolous pustule in Mr. Butler's children, inoculated other children with some of the matter thus produced, and excited the small-pox in its usual form. This, as he confessed to me, was one circumstance which staggered him. In his report he says, these children were inoculated from pustules on the arms of those who had undergone vaccination; but in the analysis of his publication, in the Med. and Chir. Review, it is justly remarked, that it should have been stated, whether the matter was taken from the inoculated part, or from one of the secondary pustules. I therefore think it necessary to mention, that it was taken from the inoculated part. "It has been ascertained," as the Reviewer truly asserts, "that a pustule may be excited in a person who has gone through the small-pox; and that the matter of such pustule is capable of giving infection.

Of this I informed Dr. Rollo; and, at the same time, expressed my regret, that he had propagated the infection thus generated. It was this circumstance that spread an alarm far and wide; and gave rise to the remark I had made in my answer to Mr. Goldson, previous to the publication of the Review in question, and even of Dr. Rollo's Report. It is as follows:

"The possibility of having a local variolous pustule after the small-pox, or the cow-pox, having been often ascertained, I hope that in future, when gentlemen meet with such cases, they will not deem it necesary, or even justifiable, to put the matter to the test, by inoculating with that deadly poison any persons who have not yet had the disease.

"Such an experiment, when matter is taken from a pustule in one who has been previously vaccinated, not only tends to spread the contagion of the small-pox, but also to excite a doubt of the efficacy of vaccination in the mind of the public."

Dr. Rollo took matter for inoculation from two secondary eruptions on Master Butler, but it proved unsuccessful. Had any other eruptions appeared more promising, there is no reason to doubt that he would have taken matter from them also.

The writer in the Med. and Chir. Review, speaking of the cases in Fullwood's Rents, says, "These cases have unfortunately followed close on the heels of the unfavourable ones of Dr. Rollo, a man of acknowledged ability as an observer." Those who acknowledged the ability of Dr. Rollo as an observer, must allow that his evidence is in

in favour of vaccination; since he was not able to observe a single variolous eruption, in any one of those vaccine patients whom he inoculated for the small-pox.

The Reviewer of Mr. Dunning's pamphlet, in the same number of the Review, has provided an antidote for the poison, which this malignant writer is endeavouring to instil into the public mind. He very judiciously remarks, that in the aforesaid "pamphlet, several cases are given at length, where the patients were subjected to variolous inoculation after having been vaccinated from three to five years before. *The effects corresponded very nearly with those observed by Dr. Rollo to have occurred in his experiments; that is, a good deal of local inflammation was excited in the inoculated parts; and in some an eruption of pimples took place, preceded by constitutional affection. The precise characters of small-pox were, however, wanting.*"

This proves, that the statement of the other writer in the same Review is a misrepresentation; which, "*following close on the heels*" of the misrepresentation of the Kensington case, indicates a deliberate design to calumniate vaccination. Whether the author of those misrepresentations is an original self-interested opponent of the practice, or a jealous rival of Dr. Jenner, I shall not pretend to determine; but I trust, that one channel at least will always be open, in which the calumnies of prostitute prints may be refuted; otherwise we may see another string of falsehoods, such as lately appeared in the Times, where it was asserted that a child was vaccinated two years before she was born.

It cannot have escaped notice, that in the narrative alluded to, the names of some respectable practitioners were joined with others of a very different description, in order to give currency to the statement; but this was done without their consent.

I now beg leave to offer a few observations on Dr. Macdonald's Answer to Mr. Goldson, published in your Journal for October; which I consider as a valuable acquisition to Medical Science. In some respects, however, the opinions of Dr. Macdonald are different from those which are commonly entertained.

He thinks it still doubtful, whether it is requisite that the matter of grease should pass through the nipple of the cow, in order to produce the desired effect in the human body. This point, I apprehend, numerous experiments,

 particu-

particularly those of Drs. Loy, Sacco, La Font, and De Carro, have satisfactorily decided in the negative.

Dr. Macdonald is of opinion, that the matter of grease, if inserted into the nipple of a mare, would produce nothing. He says, the experiments instituted by Professor Vibourg have clearly proved that the grease is not infectious in the horse. A negative, however, is not so easily proved; otherwise we could demonstrate, that the cow-pock does not originate from grease. The difficulty lies in procuring the genuine matter of grease in an active state. This matter succeeds, when inserted into the nipple of a cow; and the late Mr. Davy shewed Dr. Jenner and me an instance, in which vaccine matter succeeded when inserted into the heel of a horse. I therefore see no reason to doubt, that active equine matter would succeed, when inserted into the nipple of a mare.

Dr. Macdonald says, medical records abound with cases of spurious eruptions, produced by the variolous contagion. Among these spurious eruptions he reckons the chicken-pox. To such an hypothesis, I conceive, the members of the medical profession in general will not assent. I have alluded to it in my Treatise on the Cow-pox, p. 943 and 975; but little expected, that it would have met with so respectable an advocate as Dr. Macdonald.

Dr. Macdonald contends, that several cases of eruption subsequent to vaccination, found in Dr. Woodville's Report, have erroneously been taken for the small-pox from previous infection; of which he thinks the efflorescence a sufficient proof. I have, however, seen exceptions to this rule. Dr. Macdonald thinks the eruptions which happened subsequent to vaccination, in the practice of Dr. Ballhorn and Mr. Stromeyer at Hanover, were the fruits of exposure to variolous infection, since the small-pox was in the same neighbourhood, and even in the same house; but he considers the disease thus produced, to have been the chicken-pox.

That the pustulous disease produced in the vaccine patients in the Small-pox Hospital was the small-pox, I can safely aver; matter derived from that source having excited the small-pox in my own practice, and in that of many others; but, with regard to the Hanoverian cases, I must confess, upon minutely reconsidering them, some appear to have been variolous, and some varicellous. In the former there was a hard base, and a suppuration at the apex; in the latter a vesicle.

That the former was really the small-pox could not be proved, unless matter had been taken and used for inoculation;

lation; but every thing which I have observed relative to the chicken-pox convinces me, that the hypothesis of its originating from degenerate small-pox matter is ill founded. This idea probably took its rise from the very frequent mistake of the chicken-pox for the small-pox.—Hence virus taken from the former, and inserted instead of the latter, producing its like, induced practitioners to suppose, *or to pretend*, that the small-pox sometimes degenerates into the chicken-pox.

Were this the case, the chicken-pox, as an epidemic, would more commonly follow than precede the small-pox; a circumstance which I have never been able to ascertain; and I am fully persuaded, that one of those diseases as often happens first, as the other.

Having lately seen a coexistence of the chicken-pox and the scarlatina, I embrace the present opportunity of recording the fact. It occurred in the family of Mr. Child, in Barlow's Buildings, Long Lane, Southwark. This case afforded an additional proof of the compatibility of two morbid actions; both diseases having appeared at the same time, and pursued their natural course. The scarlatina was extremely violent; but terminated well.

Some gentlemen, rather sanguine in their hopes, and ostentatious in their reports, wish the world to suppose that they have extended the practice of vaccination to New South Wales; letters lately received from Mr. Savage, late assistant surgeon of the Glatton, now settled at Parramatta, prove that this desirable object is not yet accomplished.

From one of his letters, received by Mr. Harwood, formerly surgeon of the Providence, it appears, that on his leaving England, he intended to have preserved his vaccine matter by inoculating passengers on board the ship; but, owing to a mistake or misrepresentation, this privilege was afterwards refused.

This letter was dated Rio Janeiro, December 8, 1802. He there tells us, that the medical practitioners, and inhabitants in general, wished much to have vaccination introduced among them; but he was afraid to open the packet of matter he had received from me, as they were to re-

main

main on that station only a week, lest it should be injured by the admission of air. This I mention, for the sake of informing any persons who may in future touch at any distant port, that a week, and even a much shorter time, is sufficient to excite a fresh supply of matter; which will not only enable mariners to leave this boon behind them, but also facilitate its conveyance to the place of their destination.

By a letter which I received from Mr. Savage, dated Sydney, New South Wales, May 13, 1803, I was informed that he had commenced his experiments with vaccine virus; but from subsequent intelligence it appears, they proved unsuccessful. It has been commonly supposed, the small-pox has never visited that remote region; but Mr. Savage declares there are sufficient traces of it among the natives, to warrant him in believing it has existed there. Should it ever appear in that part of the world again, he has no doubt but, from the heat of the climate, and the intemperance of the inhabitants, its ravages will be dreadful; unless prevented by the grand prophylactic which has immortalized a Jenner.

The last letter received from Mr. Savage, dated Parramatta, February 29, 1804, states, that Dr. Anderson was about to send a surgeon from Madras, with vaccine virus, and some children; in order to introduce vaccination into New South Wales. This plan holds forth the most flattering prospect of success.

Mr. Savage notices one circumstance relative to the climate of New South Wales, which is equally singular and surprising. The changes from heat to cold, and from cold to heat, are sudden and frequent; insomuch, that it is not uncommon, during the land-wind, for the thermometer to stand at upwards of 100° in the shade; and by a sudden shift of wind to the southward, for it to fall instantly to 50° or even below it. Yet these changes are not found to be productive of any injurious consequences. The climate is healthy; and the soil fruitful.

I am, &c.

JOHN RING.

New Street, Hanover Square.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

In the last Number of the Medical and Chirurgical Review is an Article, stating, that when I saw the child, who was the subject of the Kensington case, on the fourth day after I had inoculated him with cow-pock virus, "I expressed myself satisfied with the appearance of the arms."

Had the author of that article taken the trouble to call upon me, I should have informed him, that I did not, nor could I consistently, speak decidedly on that point, at so early a stage, and that nothing could be more contrary to my habit, or disposition, than such hasty decision on matters of consequence.

I requested the child might be brought to my house on the Monday following, that is, on the eighth day. He was brought on that day, but not until the time appointed was considerably past, and I was unavoidably absent from home. The reason of my directing them to bring him to my house in Lower Eaton Street, Pimlico, was, because it lays considerably nearer to Kensington than the Castle Street station, where the child was inoculated. The parents, trusting too much to their own judgment, and the improperly obtruded opinions of other people, thought the child secure, and did not send him to me again, so that I did not see him afterwards till the evening before his decease. He was then sinking under the confluent small-pox. I called for a candle, and closely examined his right arm, but could trace no mark of his having had the cow-pock. I could not examine the left arm, without greatly disturbing him (which I thought improper in that advanced stage of the disease) because he lay upon his left side; however, I did not consider that as of so much consequence, because I invariably inoculate on the right arm; sometimes, though very rarely, from timidity in the subject, or other material intervening cause, I omit to inoculate in the left: therefore having found no leading mark on the right arm to determine from, and having afterwards made the most minute inquiry into all circumstances, I am of opinion, that the vaccine inoculation never took proper effect.

This being a true statement of the case, I have to request that you will do me the justice to insert it in the next Number of your Journal.

I am, &c.

Nov. 21, 1804. J. CULLURNE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE estimable character on whom it has fallen to discover, and to reveal to a suffering world, the means of escaping the pestilential horrors of small-pox, was I think peculiarly happy in detecting the existence and the causes of *spurious* pustule.

On the subject of spurious pustule, &c. I offer you the following Address to the Governor of Minorca, written, as will appear from its contents, when I had not yet acquired that experience which I have since obtained.

"TO THE GOVERNOR FOX.

"John Walker, M. D. associated with Joseph Head Marshall, M.D. in an order from the Admiralty to take a passage on board of the Endymion, for the purpose of bringing to this part of the world the new discovery of the cow-pox inoculation, thinks it his duty to return thanks, on the part of himself and colleague, to the Governor at Minorca, for his liberal attention to themselves personally as well as to their mission, and to inform him of their proceedings.

"When the native magistrates, the Jurats, had given them an audience, at the instance of the Governor, and expressed their approbation * of the new practice, they immediately proceeded to inoculate the troops and seamen of the Navy, &c.

"Other men and children attached to the British service have been inoculated, &c.

"Candour obliges us to confess, that the disease has been produced in but a very partial way. The effect upon the system has not been so great as we have witnessed it in England; it passed away in about half the time. In many instances, it has not been produced at all.

"Information of this seemed due to the natives. Their safety might be concerned in it. The honour of the medical profession, as well as individual character, should be supported; and it ought not to appear to them, that the British government had in any way patronized a species of charla-

* Without this the Governor told us he could not, by treaty, consent to the inoculation being introduced into the island.

charlatanerie in place of a practice important to humanity, and which, originating in England, is now spreading itself rapidly to different parts of the world.

"The explanation of the cause of the apparent degeneration of the disease, or of the production of a new one, was attempted; and they were fully satisfied. They were informed that threads impregnated with vaccine virus were brought from villages in Gloucestershire, and matter, still more recent, from London; that the latter was used successfully in the Endymion; that hence fresh virus was obtained, which effectually produced the disease at Gibraltar; that the disease was also produced in the Florentino, on her way from Gibraltar to this island; but that here we in vain attempted to excite the disease by the virus brought from England, as well as by that more recently collected on the way; that we then brought a boy from on board the Florentino, and inoculated the children at the Foundling Hospital with matter taken from his arm, and that this produced the diminished effect already mentioned; that on our witnessing this new appearance of the disease, we were alarmed, and concluded, that one of us should return to the Rock, to obtain fresh matter, as the medical men there had undertaken to keep up the disease as well as to preserve the matter of it; or, in case of failure there, to proceed to England; that the other should continue to attempt to excite with the yet untried threads of virus; that this attempt has been abortive, and that nothing but the diminished or degenerated disease had been propagated in this island. Time may fully determine whether this slight affection will at all fortify the system against the small-pox. My opinion is, that it may moderate the effects of it, although I fear that it will not entirely prevent it.

"As the confluent small-pox has lately been raging in the island, I thought it right to recommend it, remarking, that it might be, in comparison of the fully marked cow-pox, what one coat of lime would be to a wall which they wished to thoroughly clean and whiten (pointing to a clouded or stained part of their town-hall) would be to a full proper whitening.

"But whence arose the failure of the virus to which we suppose the present disappointment referable? On packing up that which we obtained since our leaving England, it happened that in sealing it up a degree of heat was applied, which at the time excited some fear that the matter might be injured. The fear seems to have been realized. As to the failure of the virus brought from England, we seem

obliged

obliged to refer it less to its age than to some incautious exposure to the air.

"But why was the virus taken from the sailor-boy ineffectual to produce a disease bearing the character of the undoubtedly genuine cow-pox? The lad was a Spaniard; we did not understand each other's language. First, Perhaps he had had the small-pox. Secondly, As we only tryed him through failure of what we had depended upon, perhaps we, under fear of utterly failing, had taken the matter from his arm at rather too late a period, when the limpid virus had passed to a state of pus. Or, thirdly, He might have some other disease upon him. It is a fact that there was at last discovered on him a swelling with considerable discharge, and this perhaps prevented him from receiving the disease in its full force, and the matter of consequence, taken from him, from giving it."

Aboard of the Alexander, Mahon Harbour, 19, *x*, 1800.

As I had hitherto only practised the Jennerian inoculation in the vale of Gloucestershire, which had given it birth, the spurious pustules which arose in Minorca were the first I had seen. I however yet believe, that unequivocally spurious, or degenerated, cow-pock, produces all the effects which have lately been attributed to the true; viz. a kind of partial and temporary protection against the violence of small-pox; and with this persuasion on my mind, I can only refer every *failure* to the use of improper matter.

I informed the Jurats, that on our recovering the matter, my colleague or myself would return to the isle, or that we would send it to the surgeon-general, who had accompanied me to the hall, and who promised to introduce it. On Marshall's rejoining me at Malta, he informed me, that immediately on his return to Minorca from Gibraltar, he re-inoculated an officer's child with full effect; that he afterwards submitted it to variolous inoculation without effect, and that the natives assured him, that while several had died there of the small pox, even under inoculation, those who had had the imperfect cow-pock had been very little affected with the small-pox.

I suppose we shall shortly have the Report of the very respectable association on the case at Fulwood's Rents. Will they find it to have been varicella, wasser pocken; diminished small-pox after spurious cow-pock, or what? In the bills of mortality for August 21, October 2, and 16, I find three deaths attributed to chicken-pox. If these eruptions, whatever they were, had been after vacciolation

or

or vaccævaration, they must have been fatal cases of small-pox after cow-pock.

Lately called on to see a case of variola after vacciola, I found a child covered with small-pox, and immediately declared it to be such. On examining its arms, and not finding any cicatrix, I informed the parents that it had never had the cow-pock. Another child was shown to me, on whom there was distinctly characterised cicatrix; I told them that this afforded so strong a presumption that it was fully protected, that I would recommend its sleeping with the small-pox patient. They have slept together from the beginning, said the father and mother. Some weeks have now elapsed, the child's protection stands confirmed; and the mother now recollects, that the Doctor took a great deal of matter from its arm, but none from the one which has taken the small-pox.

A father called on me a few days ago, and told me, that of two children which I had inoculated last spring, one was now covered with small-pox, the other sickening; and that he was advised to advertise it. On consulting the Register, I found them both marked perfect cases; and told him, it was impossible for either of them to be infected with small-pox. I immediately called on our Vice President, John Ring, and challenged him to come and detect my failure, remarking, that I could scarcely expect my own report, if favourable, to be confidently received. He had the goodness to accompany me, and on our seeing the child, he immediately declared it chicken-pox.

The applications for matter at the Central House, are more numerous than ever; there is not yet any falling off in the inoculations.

Your's, respectfully,

Salisbury Square, 15 *xj*, 1804. JOHN WALKER.

To Dr. BATTY.

Dear Sir,

WHEN I last had the pleasure of seeing you in London, I promised to give you an account of any surgical instruments that I might be fortunate enough to invent or improve. In the mean time, I enclose drawings of several, with short descriptions of them. In case you are of opinion

that

that they are likely to prove useful, I will thank you to make them publicly known through the medium of the Medical Journal.

Yours, &c.

Verdun sur Meuse, May 30, 1804. THOMAS CLARK, M. D.

The tourniquet represented in the drawings, fig. 1, 2, and 3, is much more simple, smaller, lighter, and equally efficacious with any hitherto invented, and may be procured at a very trifling expence. In fact, it furnishes a means of easily tightening a piece of tape or leather strap with a lever. The buckle and tape, represented in fig. 1, being applied to a limb in the common way, the loose portion of tape, next the tongue of the buckle, is to be drawn somewhat tight, and placed with its edges opposed to the centre of the holes of the instrument, as represented in fig. 2. The shortest portion of the lever is now to be introduced into one of the holes, so that its slit, represented in fig. 3, may receive the edge of the tape; then push it along until its extremity passes through the hole in the opposite side of the instrument. The tongue of the buckle being now disengaged from the tape, the lever is to be turned round by means of its movable handle, (a) in the same direction with the points of the tongue of the buckle. When the tape is sufficiently tight, the lever may either be allowed to remain or taken away, as may be found most convenient. By turning it once round in the opposite direction, it can easily be withdrawn. Consequently, this tourniquet is peculiarly well adapted for the army, as, during an engagement, one lever will serve as many tourniquets as an individual can apply. Hence the carrying a considerable number of these instruments becomes a very easy matter, their weight and size being thus rendered very trifling.

Being of opinion that an instrument capable of compressing any of the larger blood vessels of the extremities, while, at the same time, the blood should be permitted to circulate in the parts beyond the instrument, by means of the other vessels, might, on many occasions, prove extremely servicable, I have invented the instrument represented in fig. 4.

Let it be supposed, that the humeral artery is wounded at the flexure of the fore arm, by a lancet in the operation of

of blood-letting. In this case, it appears to me more than probable, that if the artery was soon afterwards compressed, at a little distance above the wound, and kept so for several days, the circulation in the smaller arteries being in the mean time in a great measure uninterrupted, that the wound in the artery would heal. When it should be deemed necessary to remove the compression, I would recommend doing it in a very gradual manner. Thus, for the first day, let the compression be so regulated as to permit a fourth part of the usual quantity of blood to pass under the cushion; on the second day, a third part, and so on, provided there was reason to believe that the wound in the artery had perfectly united; if not, the entire compression must necessarily be again had recourse to.

The instrument represented in fig. 4, seems to be well adapted for compressing the humeral artery, or any other that can be easily pressed against a bone. It consists of a semi-circular portion of steel, (the diameter of which should always be greater than that of the limb to which it is to be applied) a screw with a soft cushion attached to it, a piece of tape, and a buckle. The tape ought to be a good deal broader than common, or a large cushion, fixed to a thin plate of metal, should be applied diametrically opposite to the screw, and retained in its place by the tape.

The cushion being applied, by means of the screw, to the internal plate of the instrument, let the semi-circle be placed on the arm, so that the cushion may be immediately over the artery; then buckle the tape with considerable tightness. The screw is now to be turned gradually round, until the circulation in the artery is stopped. It must evidently appear, as the semi-circle does not touch the arm, that the circulation under it, except where the cushion presses, will be totally uninterrupted. However, if the cushion is only applied with such a degree of force as is just sufficient to stop the circulation in the artery, I think it must also be granted, that the circulation under the tape or opposite large cushion, will also be tolerably free. Suppose the surface of the tape or large cushion to be four times greater than that of the small one, and that the pressure of this last is barely sufficient to stop the circulation in the artery, I think it must evidently appear that the degree of pressure made by the tape or large cushion, on any one point, will be only equal to the fourth part of that produced by the small one on an equal space; their surfaces being in the ratio of one to four, agreeably to my supposition; that is, supposing the pressure to be equally

powerful throughout their surfaces. Therefore, it seems reasonable to conclude, that in such a case as now mentioned, the humeral artery might be completely compressed, while, at the same time, the circulation in the fore arm and hand might be supported with nearly as great certainty as after the common operation for aneurism.

The same reasoning will apply to wounds of the extremities, attended with hæmorrhagy, which cannot be readily stopped by the usual dressings. The compressing of the principal artery or arteries that supply the part or parts with blood, from whence the hæmorrhagy takes place, undoubtedly, in most cases, will stop the bleeding; but if it should not be stopped by these means, and the proper application of dressings, a similar instrument may be applied below the wound; and thus certainly the discharge of blood would be kept within due bounds.

In many instances of wounds, it is probable that the application of these instruments, for a few hours, will be sufficient. However, the length of time must necessarily depend on the nature of the wounds. At all events, if the hæmorrhagy should recur, after the compression has been removed, either in part or entirely, the complete compression must be renewed.

The instrument alluded to is only calculated to make pressure on arteries, when they can easily be pressed against a bone by means of its cushion. On this account, I have invented another, or rather improved this instrument, by adding another semi-circle with a screw and cushion. A hinge, by which it may be readily opened and shut, is likewise added, as may be observed in fig. 5. This instrument, from its having two screws and cushions diametrically opposite, can be so managed as to compress arteries in any part of the extremities. In fact, this instrument, in a great measure, supersedes the use of the former, as one of the screws and cushion are constructed so that they may be taken away at pleasure. That part of the instrument opposite the remaining screw, may then be covered with cloth, or have a large cushion fixed to it, in order to produce an effect similar to that produced by the instrument first described.

Before concluding this subject, I consider it proper to mention, that it seems to me highly probable, that the judicious management of these instruments may be very useful in military practice, and may frequently preserve the use or even save many limbs.

Some time ago it occurred to me, that musquet balls might,

might, in many instances, be extracted from wounds, by means of a steel hook, such as represented in fig. 6. The under part of the hook should form an acute angle; however, not so sharp as to injure the soft parts, and its upper part ought to be a quarter of an inch long and an eighth part in breadth, having a curvature and excavation corresponding to the shape of a musquet ball. If this instrument was cautiously introdnced into a wound until it should reach the ball, it seems very probable that it might be made to pass beyond, and then turned behind the ball, in such a manner, that by a few efforts the ball could be readily extracted, namely, by withdrawing the instrument cautiously, and endeavouring at the same time to keep the hook behind, and as near its centre as possible.

I have lately invented another very simple instrument, consisting of a flat silver canula, curved at one end, together with a pliable elastic portion of steel, having likewise a similar curvature at one extremity. The whole of the steel should be of such a size as to be made to pass readily into the canula, excepting a very small portion, at its curved extremity. This portion should be constructed so as to prevent the extremity of the canula from meeting with any resistance from the soft parts when introduced into a wound. The degree of pliability of the flexible part of the steel, should be such as to render its passage through the curvature of the canula quite easy. The curved portion of steel, though inflexible, will readily pass into the curvature of the canula; their curvatures, agreeably to my supposition, being made to correspond with each other. The breadth of this instrument should be about a quarter of an inch.

Let us suppose that this instrument is placed so that its straight part forms a *tangent* to a diameter of the ball, parallel to a plane passing through the surface of the external wound, as represented in fig. 7, and that the curvature of the canula is equal in length to an eighth part of the ball's circumference (a b). Now, let us imagine, that the curved portion of steel is made to project beyond the canula for an equal distance, and it is evident that the curvatures of the canula and steel together will be equal to a fourth part of the circumference of the ball (a d). Hence I think it reasonable to suppose, that this instrument may in many cases prove extremely servicable, and will render the use of forceps frequently unnecessary.

Instead of a silver canula, it is probable that a piece of inflexible steel with groves on its edges, in order to receive the

the edges of the other part of the instrument, and thus to retain both portions intimately applied together, would answer better, as the instrument would be rendered thinner, and likewise more closely applied to the ball.

In fig. 8, is represented a probe made of a spiral steel wire, with a large round point. This probe may be useful in finding out the direction of sinous sores, as it readily bends in every direction, and, at the same time, possesses a sufficient degree of rigidity. When it touches a musquet ball, or any hard substance, the same kind of sensation is communicated to the hand, as when a common steel probe is rubbed against a hard substance.

Obserations on the Salivary Glands in the four Classes of vertebrated Animals, by M. Duvernoy.

THE author has made his observations on a great number of animals from each of the four classes, the results of which are as follow:

1. The mammifera are the only animals provided with glands belonging to the order of the conglomeratæ.

2. These glands are, however, not to be met with in the cetacea, as has already been noticed by Mr. Cuvier, in his memoir on the porpus (Delphinus Phocœna, L.) and the porpoise (Delphinus Delphis, L.)

3. They are proportionably smaller in the amphibious mammifera than in the rest.

4. The glandulæ parotideæ, and sublinguales are wanting, which is never the case with the submaxillares. Thus the myrmecophaga, and the echidna, have submaxillares and sublinguales, the first of which are very considerable, but the same animals have no parotides.

5. The herbivorous animals are possessed of a much more considerable salivary system, than is found in the carnivorous kind, which result, though not new, is confirmed by a great number of observations.

6. In the carnivorous and gnawing animals, *(rongeurs)* it often happens, that the proportions of the glandulæ maxillares increase, while that of the parotides decrease, which is sometimes so much the case, that the latter are considerably smaller than the former, as in didelphis virginiana, in the genus vespertilio, canis, phoca, mussylvaticus, phascoloma, &c. and it may be also observed in the

raca,

reca, and the rabbit. These observations seem to indicate a relation between the manner in which the aliments are submitted to the action of the teeth, and the place where the salivary glands issue their liquor. Hence it appears, that in the carnivorous and gnawing kind of animals, in the first of which the canine and incisive teeth, and in the latter the incisives only, perform the most essential part of mastication; the saliva is, on the whole, conducted in a much greater quantity towards the teeth, than in animals where those teeth have not so essential a function. In the tatu, however, and the sloth, the maxillary glands are likewise much larger than the parotides.

7. In the carnivorous tribe the salivary glands are in general much redder, more composed of lobes, and of a firmer texture.

8. The ductus stenonianus passes not always through the masseter on its way to the buccinator. In the tatu, the pachyderma, the ruminant animals, and the solipeda, it follows the inferior margin of the former, forming there an arch, the convex part of which is turned downwards.

9. It is often the case, that the sublinguales have one canal only, opening at the side of that of the maxillares, which has been observed in the simiæ, several carnivorous animals, and the ruminants. In the solipeda, they have several small canals; in the hog, there are two pairs of them, the anterior of which is large and flat with several small excretory canals; whereas the posterior is long, narrow, and provided with only one canal.

10. The molares generally form a considerable prolongated mass, which is situated opposite the superior teeth of the same name, or also near the inferior molar teeth, as in the cat.

11. The buccales and labiales are in general inconsiderable.

12. Some animals have, besides these glands common to the human species, another gland, which, in some, appears to be but a continuation of the molares; it arises beneath the zygomatic arch, behind the os submaxillare, and opens at the extremity of the superior margo alveolaris with sundry small excretory canals, which takes place in oxen, the sheep, and the horse. In the dog, it is separated from the molares, forming a distinct mass, that has only one excretory canal, opening in the same region. This is the same gland which has been described by Nuck in the dog. J. G. Duvernoy has observed it in the serval. The author, however, could not trace it in the cat.

 13. In

13. In birds, the glands, analogous to the salivary glands of the mammifera, correspond with respect to their situation only to the sublinguales of the latter. They are a collection of small round hollow grains, containing a thick viscous humour, which is conducted to the basis of the palate by numerous small orifices; they are considerable in the gallinacea, but much smaller in the birds of prey, and very minute in water birds. There are two pairs of them in the gallinaceous tribe and in the genus certhia; whereas, in the rest, only one pair is to be found.

14. In reptiles, they have frequently the same granulary structure as is observed in lizards, and the tupinamis, both belonging to the genus lacerta. In these animals they are placed immediately under the skin, along the exterior surface of the branches of the maxilla inferior. In the same manner it is found in serpents which have a thin, long, smooth, and forked tongue. In the amphisbœna, they have also a granulary structure, but they are placed under the tongue between the musculi genioglossi and geniohyoidei. In the greatest part of the other reptiles, the tongue itself seems to consist of a glandulous texture, and its function to be analogous to that of the preceding glands. This gland is very obvious in the ranæ and the lacertæ, the gecko, iquana, draco, chamæleon, and stinci; in all which animals the surface of the tongue is covered with hollow papillæ, in which the salivary humour is separated. In the Greek tortoise, a quantity of small canals are seen on the tongue, which are combined at their basis, and the body thus formed is perforated with many small openings; the tongue of several ranæ is likewise formed of a gelatinous substance.

15. In fishes there is no gland analogous to the salivary glands of the other classes. The rajæ, however, and the squali are provided with glandulous grains, which are situated immediately under the membrane of the palate, opposite the cartilago transversalis, which answers the os hyoideum, and the great muscular depressor maxillæ inferioris. They seem to pass their humour at the basis of the palate, though this could not be observed on applying a strong pressure. The other fishes offer nothing similar, but they have, like the former, two glandulous strata, more or less thick at the origin of the œsophagus, betwixt the interior and the muscular membrane. It is doubtful, whether they ought to be referred to the salivary glands, or whether they be more analogous to the palatic glands of

of birds, or the amygdalæ of the mammifera, which seem to have been placed nearly in the same spot, in order to envelope the aliments on their passage into the œsophagus.

On the Veins of Bones, by Mr. Dupuytren.

THE veins situated in the interior of the bones and cartilages are but little known, because it is impossible to inject them; and, in order to find these canals, it is necessary to search for the trunks at their issue from the bones, or to trace them in the substance of the bones. They generally accompany the arteries, which may be rendered visible by injection. In the flat bones they are discovered by elevating the exterior tabula; and in the other bones, by dividing the extremities as well as the middle part of the bones with the anatomical saw in different directions. The action of acids and the combustion facilitate these researches. In dry bones they are seen to arise from the spongy texture with very fine radiculæ, and afterwards to unite under acute angles for forming branches and trunks. These, though contained within the substance of the bone, permit a circulation, which must differ from that which takes place in the soft parts, at least it needs none of the expedients which physiologists appoint for the circulation in general. The veins of bones are hardly visible in infants, but they are very much dilated, and full, in old people. They vary with respect to their number. On the cranium there are generally three or four on each side, which take their direction towards the basis, where they terminate in other trunks, as the exterior veins, in those that accompany the arteriæ meningeæ, and even in the sinus. There are two of them in each vertebra: they open themselves in the sinus of the posterior surface. The veins of the extremities of the long bones and the cartilages pass to the neighbouring veins. Those veins have, under certain circumstances, occasioned mortal hæmorrhagies.

To

To Dr. BRADLEY.

Dear Sir,

I Have heard it remarked, that your Miscellany grows less interesting than when first offered to the public. It certainly loses some of the advantages of novelty; and if any reader expects such a collection of original communications should contain no dull papers, we must be less surprised at his disappointment than his expectation. I am however persuaded, that the mistake arises, in great measure, from inattention. Men deeply engaged in business, are apt to take a hasty view of the table of contents, or even of the work itself; and if nothing particularly strikes their eye, the Number is laid down, like a newspaper in a coffee-room, with the common phrase, that *there is nothing new in it.*

To obviate as much as possible this indolence, to which we are all liable, would it not be advisable to be more attentive in your superscription to each article. I have been led to these reflexions in my present retired situation: for having access to few medical books, and much leisure, I have perused every article of your last Number with unusual industry. Nothing but such an event would have induced me to take notice of "Mr. Pulley's case of a dropsical enlargement of the abdomen." Whereas, had the paper been entitled, "*Case of hydatids in the cavity of the abdomen, in which the operation of tapping was performed; with an account of the appearances on dissection;*" few of your medical readers would have passed it over; and, to me, few subjects would have been more interesting. Having selected this paper, I cannot dismiss it without a few remarks, which I doubt not the writer will peruse with the same candour as is conspicuous in every part of his communication.

Hydatids, from the cause he describes, are by no means uncommon, not only in the abdomen, but in other parts of the body. If I am incorrect in my quotations, you will recollect they can only be from memory. A case similar to Mr. Pulley's is given by Dr. Lettsom in one of the volumes of Memoirs of the Medical Society; another occurs in the Edinburgh Medical Essays, and, I believe, in the Medical Transactions. I have given three cases in which hydatids were traced from violence in different parts of the body; one on the authority of Dr. Stokes, another witnessed by Mr. Abernethy and myself at St. Bartho-

Bartholomew's, and a third in the abdomen from a blow. But what I wish particularly to take notice of, is the remark with which the paper concludes. "Whatever," says this equally modest and ingenious writer, "may be the prevailing opinion concerning the formation of hydatids, it would appear, in this instance, that they took their origin from the accident. Inflammation of the peritoneum, doubtless, was the consequence of the kick, and probably an effusion of coagulable lymph, the birth of cystic dropsy. The largest sac was connected with the part that received the inflicted blow; most probably, it was the first formed, and from its rapid increase, possibly it assumed an inflammatory state, and by an effusion of coagulable lymph from its inner surface, might give rise to the existence of those minor hydatids, which were found floating within its cavity. This sac possessed much firmness and density, and certainly was highly vascular."

Nothing can be more reasonable than the conclusion, that the kick and consequent inflammation were the causes of the formation of hydatids. But how can we assume from such premises, that inflammation and the effusion of coagulable lymph should produce a *multiplication* of uniform substances, filled with a transparent fluid that is not coagulable. If this multiplication were the effect of fresh inflammation and effusion, should we not have found the usual symptoms of inflammation occasionally occur? which does not appear by the history of the case. If we admit, as seems almost demonstrated by Dr. J. Hunter, that the hydatid is an animal possessing a life independent of the body in which it grows, excepting by the nourishment it absorbs, we shall I conceive more readily comprehend their multiplication by the analogy we find in other less complicated animals. If any part of the body is rendered useless by a cause which does not deprive it of life, nothing seems more consistent with the economy of nature than that such a part should become the nidus of a race of animals, that can only exist in living animal matter. Hence, if lymph is thrown out, and instead of being reabsorbed, retains its life, and assumes vessels for its support, the same consequences may be expected.

Your readers, and particularly Mr. Pulley, will consider these remarks in no other light than as hints against assigning causes which, without further reasoning, do not appear equal to the effect. If Dr. Hunter's theory of hydatids is thought inconclusive, it seems at least reasonable to

to offer some objections when a new one is started. I trust, however, I shall not be thought to undervalue Mr. Pulley's communication, when my only wish is that he should dilate with more confidence on his own opinions.

I shall conclude this paper with some account of the result of my inquiries concerning the cow-pox inoculation during a journey through all the North-West counties, from Bristol to New Galoway. At every town I have taken pains to be introduced to the different practitioners, in order to gain information of anomalous cases by which to ascertain every law in morbid poisons. Sanguine as I was in favour of the practice, I could not help being astonished at the success with which it has been uniformly attended. The deviations from the established laws of the disease have been so few as to afford me no new facts.

The mention of the cow-pox must be my apology if I do not yet conclude. Dr. Jenner has a valuable collection of facts relative to the hydatids and other diseases in brutes. It is much to be wished that he would give them to the world, and at least ascertain the precise characters of the more common maladies to which brutes are liable. Even the grease in the horse is not yet clearly characterized; and the want of precision in this respect has given rise to much misconception and controversy. Let us hope the ingenious writer will not be discouraged from again appearing before the public by those severities which every reformer should prepare himself to receive.

I remain, &c.

JOSEPH ADAMS.

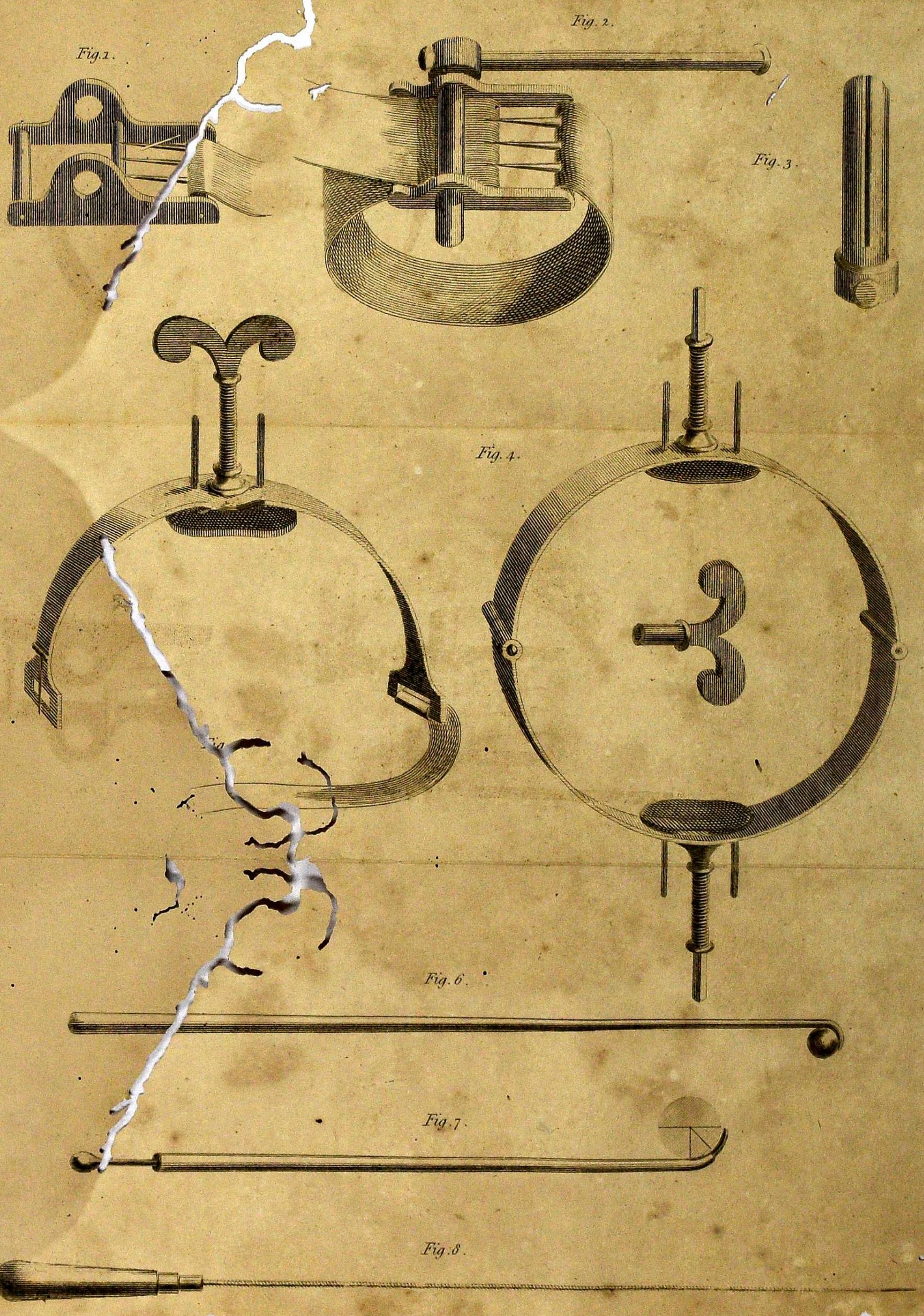
Village of Castle Douglas, near Dumfries, Nov. 1, 1804.

Botanical Description of British Plants.

(Continued from pp. 36[illegible]—372.)

60. Smyrnium. *S. olusatrum. Hipposetinum.*
Ang. Asissanders. Common Alexanders.
Gen. Desc. Petals keeled, tapering to a point. Fruit, egg-globular, bulging, angular.
Spec. Desc. Stem leaves by threes, on leaf-stalks, serrated. *Root leaves* by triple threes. *Sheaths* of leaves ragged, fringed. *Involucell.* v. short. Central florets male, other herm. Plant smooth, sickly pale green. Flowers green yellow,

Dr. Clarks new and improved Surgical Instruments. Med. Journal Vol. XII. No. 70.



Publish'd Dec. 1. 1804, by Richard Phillips, 71. St. Paul's Church Yard.

yellow. *Ditches, and rocks on the sea coast.* BLOSS. May, June.

Use. Alexanders was formerly cultivated in our gardens, but it is now better supplied by celery, and consequently neglected. It is boiled and greedily eaten by sailors, who happen, on their return from long voyages, to land on the South-west corner of the Isle of Anglesea, where it grows in profusion.—*Pennant.*

61. ANETHUM. *A. fœniculum. Fœniculum dulce.*

Ang. Fennel. Finckle. Fennel-dill.

Gen. Desc. Petals entire, rolled inwards: Fruit lentil-shaped, compressed; small, scored, bordered.

Spec. Desc. Leaves many-div. hair-like. *Seeds* egg-oblong, tapering at each end, not bordered, three to five feet high; blue green. *Flowers* yellow. *Chalk Cliffs.* BLOSS. July, August.

Use. This plant was highly esteemed by the ancients for promoting the secretion of milk, an opinion which the experience of some modern authors has tended to confirm. The seeds, though termed one of the four greater hot seeds, and supposed to be *stomachic* and *carminative,* are inferior in their effects to those of dill, anise, and carraway. The seeds used in medicine are usually imported from more southern countries: they give out their virtue very imperfectly in infusion, but by evaporation plentifully.—*Woodville.* They abound with an essential oil which is *carminative* and *diuretic,* but not heating.—*With.* The root, Alston says, may be called *alimentum medicamentosum;* and it was thought by Bergius to possess all the virtue of Ginseng, but it is now wholly disregarded in medicine: to the taste it is sweet, with very little aromatic warmth, and is said to be *pectoral* and *diuretic.* A simple distilled water is directed to be prepared from the fennel seeds.—*Woodville.* The leaves boiled are used in sauce for several kinds of fish, and they are eaten raw with pickled fish. The tender buds are useful in sallads. In Italy the stalks are blanched as a winter sallad.—*Withering.*

62. CARUM. C. Carui. *Cuminum pratense. Caruon.*

Ang. Carraway.

Gen. Desc. Involucr. one leaf. Petals united, bent inwards, notched at the end. Fruit small, eliptical, bulging, roundish, scored.

Spec. Desc. Plant two to three feet high, smooth. *Leaves* doubly compound: *Leafits* in sixes, in a sort of whirl. *Involucr.* one to five leaves. *Umbel-sp.* nine to twelve. Florets

all

all fertile. Petals white, slightly tinged with red. *Meadows and pastures.* Bloss. May, June.

Use. The seeds are well known to have a pleasant spicy smell, and a warm aromatic taste, and are on this account used for various œconomical purposes. They are esteemed to be *carminative, cordial,* and *stomachic,* and are recommended in *dyspepsia, flatulencies,* and other symptoms attending hysterical and hypochondriacal disorders; they are likewise reported to be diuretic, and to promote the secretion of milk: they are less frequently employed than formerly.—*Woodville.* The seeds are used in cakes, and often put into bread, especially at Christmas-time. Incrusted with sugar, they are sold by confectioners as carraway-comfits; and they are often distilled along with spirituous liquors for the sake of the flavour and heat which they impart. These seeds were formerly recommended by Dioscorides to pale-faced girls, and, in more modern days, their use in that case is not forgotten. They are no despicable remedy in *tertian agues.* They abound with an essential oil which is *antispasmodic* and *carminative.*—*Withering.* Parkinson says, that the roots of this plant when young are a better esculent than parsnips. The tender leaves may be boiled with pot-herbs. Sheep, goats, and swine eat it: horses and cows are not fond of it.—*Ibid.*

63. Pimpinella. *P. magna.*

Ang. Great Burnet saxifrage, or anise.

Gen. Desc. Petals bent inwards. Styles upright. Summits nearly globular. Fruit small, egg-oblong, with five elevated ridges.

Spec. Desc. *Leaves* uniform, winged: *leafits* spear shaped, sometimes broader than they are long, irregularly serrated, as if besmeared with oil. *Leaf stalks* compressed. *Stem* two to three feet high. *Umbel-sp.* 14. *Pet.* white. *Hedges, woods.* Bloss. Aug. Sept.

Use. This species and the P. saxifraga, also a native of Britain, partake very nearly of the same qualities. In speaking of the latter, the medicinal of which however have no remarkable difference from the other, Dr. Woodville says, that the roots have an unpleasant smell and a hot pungent bitterish taste, whence chewing it has been recommended to relieve the *tooth ache:* its virtues are stated by Bergius to be *resolvent, diaphoretic, stomachic, diuretic.* It is recommended by several writers as a stomachic, and in all cases where pituitous humours are thought to prevail; and it is said by Hoffman to be an excellent *emmenagogue.* In the way of gargle it has been employed

employed for dissolving viscid mucus, and to stimulate the tongue, when that organ becomes paralytic. It may be given in doses of a scruple in substance, or in infusion to two drachms.—*Woodville.* The root is so acrid as to burn the mouth like pepper; and, on account of its acrimony, it has been used to cleanse the skin from freckles. It is chewed to promote the secretion of saliva: and in Germany it is prescribed in asthma and dropsy. It affords a blue oil.—*Withering.*

64. Apium. *A. graveolens. A. palustre. Elcoselinum, Paludopium.*

Ang. Smallage. Parsley. *When cultivated,* Celery.

Gen. Desc. Involucr. one leaf. Petals equal. Fruit small, bulging, ribbed. Styles bent.

Spec. Desc. Stem-leaves wedge-shaped; root-leaves winged; *leafits* of three lobes serrated; *stem* smooth, shining, deeply furrowed. *Involucr.* often wanting. *Umbel-sp.* five to eleven; those of *umbellule* eleven to sixteen. *Petals* white. *Ditches and marshes.* Bloss. Aug.

Use. The root in its wild state, when it grows near water, is fetid, acrid and noxious, but when cultivated in dry ground, it loses these properties; and the root with the lower part of the leaf-stalk and stem, blanched by being covered with earth, are eaten raw, boiled in soups, or stewed: in this state of cultivation in the garden, it is known by the name of celery. It is said to be hurtful to those subject to nervous complaints: but it is certainly a good antiscorbutic. The seeds yield an essential oil. Sheep and goats eat it: cows are not fond of it: horses refuse it. —*Withering.*

65. Apium. *A. petroselinum. A. hortense. A. sativum.*

Ang. Common parsley. Garden parsley.

Gen. Desc. As above.

Spec. Desc. Involucell. very small; *root leaves* winged, by threes. *Stem-leaves* rise from the sheaths at joints; *leafits* cut into narrow line or segments, entire. *Umbel-sp.* ten. *Umbellule-sp.* twenty. *Petals* oval, white. Bloss. June, July.

Use. This plant is a native of Sardinia, but it has been so long cultivated in our gardens, and in such frequent use for culinary purposes, as to be more familiar to us than most of our indigenous plants. Both the roots and seeds are directed by the London College for medicinal use: the former have a sweetish taste, accompanied with a slight warmth or flavour, somewhat like that of a carrot: they

are

are said to be aperient and diuretic, and have been employed in apozems to relieve nephritic pains, and obstructions of urine. The seeds are in taste warmer and more aromatic than any other part of the plant, and also manifest a considerable bitterness: like those of many other umbelliferous plants, they possess a share of aromatic and carminative power, but this being inconsiderable, they are now but seldom employed. They have been used externally with advantage for destroying cutaneous insects in children. The bruised leaves have been successfully employed as a discutient poultice in various kinds of tumors; and it is said by *Lange (Misc. verit. Med. p. 26,)* that this application has succeeded in scirrhous tumours where cicuta and mercury had failed. Though parsley is in so common use at table, it is remarkable that facts have been adduced to prove that in some constitutions it occasions epilepsy, or at least in those subject to them, aggravates the fits: it has been supposed also to produce inflammation in the eyes.—*Woodville.*

PENTANDRIA. TRIGYNIA.

66. VIBURNUM. *V. Lantana.*

Ang. Wayfaring tree. Pliant mealy tree.

Gen. Desc. Cal. five div. superior. Bloss. five cleft; berry one celled, closed. Seed 1.

Spec. Desc. Leaves oval, serrated, veined, cottony underneath. *Flower leaves* coloured. *Bloss.* cloven, white. *Summits* united. *Berries* black. *Woods and hedges.* BLOSS. May.

Use. The berries are drying and astringent. The bark of the root is employed for the manufacture of bird-lime. —*Withering.*

67. SAMBUCUS. *S. ebulus. S. humilis.*

Ang. Dwarf elder. Wallwort. Danewort.

Gen. Desc. Cal. five-toothed. Bloss. regular, with five shallow clefts. Berry juicy, many-seeded, closed.

Spec. Desc. Tufts with three divisions. *Stipulæ* leaf-like. *Stem* herbaceous, very brittle, furrowed. *Leaves* winged; leafits spear shaped, serrated. *Cal.* segm. six, purple. *Bloss.* segm. pointed, white above; purple beneath. Anthers purple, properly ten, one on each side of each filament. *Berry* three celled, three seeded. *Hedges and road sides.* BLOSS. July.

Use. Every part of the plant has a faint disagreeable smell, resembling that of common elder, but stronger and

more

more ungrateful: in the stomach its active power is greater. The root, which has a nauseous bitter taste, was formerly much employed in *dropsies*. A decoction of two drachms of it, or a small quantity of its expressed juice, promotes both the alvine and urinary discharges: if the decoction be prepared from the bark of the fresh root, its activity is so much increased, that it commonly proves both *emetic* and *cathartic*. The inner bark of the stalk, when recent, is equally powerful in evacuating the primæ viæ; and its effects as a *diuretic*, Dr. Brocklesby found to be very considerable. The berries, in their recent state, are said by Scopoli *(Flor. Carn.)* to be a gentle *cathartic*, though Haller did not find this effect. The seeds are also *diuretic*, and have been given with advantage in *dropsical* complaints: They also afford an oil, which Haller applied with success in painful affections of the joints. The leaves boiled in wine, and formed into a cataplasm, have been recommended in France as a *discutient* application to contusions and tumours.—*Woodville*. It is esteemed *diuretic* and *aperient*.—*Hill*. The roots are a powerful diuretic; a decoction of them has been found serviceable in the *dropsy*. —*Lightfoot*. It has the same medical properties with the *S. nigra (see next article)*, but in some respects more violent, and therefore less manageable. One drachm and a half of the root is a strong purge. The berries give out a violet colour. The green leaves drive away mice from granaries: and the Silesians strew them where their pigs lie, under a persuasion that they prevent some of the diseases to which those animals are liable. Horses, cows, sheep, goats, and swine refuse it.—*Withering*.

68. Sambucus. *S. nigra. S. vulgaris. S. arborea.*

Ang. Elder. Common black elder.

Gen. Desc. As above.

Spec. Desc. Tufts five div. *leafits* nearly egg-shaped, serrated. *Stem* tree-like. *Bloss.* white. *Anthers* yellow, one on each filament, arrow shaped. *Berries*, when ripe, deep black purple. *Seeds* 3. *Woods, damp hedges.* Bloss. Apr. May. *Note, Parsley-leaved elder is only a variety of this species.*

Use. This whole plant has an unpleasant narcotic smell, and some authors have represented it as unsafe to sleep under the shade of elder. The inner bark, flowers and berries are the parts used in medicine, and admitted into the pharmacopeias: the former is strongly *cathartic*, and on this account was much used by Sydenham and Boerhaave, who recommend it as an effectual hydragogue;

Sydenham

Sydenham directs three handfuls of it to be boiled in a quart of milk and water, till only a pint remains, of which one half is to be taken night and morning, and repeated for several days: it operates upwards and downwards, and on the evacuations produced, its efficacy depends. Boerhaave gave the expressed juice in doses from a drachm to half an ounce. In smaller doses it is said to be a useful aperient and deobstruent in various chronical disorders. The flowers have an agreeable flavour: in infusion when fresh they are gently *laxative;* when dry, they promote chiefly cuticular excretion, and are serviceable in *erysipelatous* and eruptive disorders. Externally they are used in fomentations and in the form of an ointment. The berries in taste are sweetish, and on expression yield a fine purple juice, which is a useful aperient and resolvent in recent colds and sundry chronical disorders, gently loosening the belly, and promoting urine and perspiration.—*Woodville, see Lewis, M. M.* This juice made into a *rob* is a safe and useful aperient.—*Lightfoot.* The inner green bark, which is an acrid *purgative,* is in smaller doses *diuretic,* and has done eminent service in glandular obstructions and dropsies: if sheep that have the *rot* be placed in a situation where they can get at the bark and the young shoots, they will quickly cure themselves. The leaves, like the bark, are *purgative,* but more nauseous. They are an ingredient in several cooling ointments. A decoction of the *flowers* taken internally is said to promote expectoration in pleurisies: externally, they are used in fomentations to ease pain and abate inflammation; they are used frequently to give a flavour to vinegar. The inner bark is an ingredient in the black dye. The berries are poisonous to poultry, and the flowers to turkies and pea-fowl. If turnips, cabbages, corn, or fruit-trees, (which are subject to blight from a variety of insects) be whipped with the green leaves and branches of elder, the insects will not attack them.—*Withering. (See Phil. Tr. lxii. p. 348).* The leaves bruised are sometimes applied outwardly in a cataplasm, in erysipelas and pleurisy, and are said to be very relaxing.—*Lightfoot.* The *wood* is hard, tough, and yellow; it is commonly made into skewers for butchers, tops for angling rods, and needles for weaving nets: it answers well for turning in the lathe. The pith being exceedingly light, is cut into balls used in electrical experiments.—*Withering.* Sheep eat it; horses, cows, and goats refuse it.—*Linn.* Others say cows are fond of it.

[To be continued.]

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

A Dissertation on Gout; exhibiting a new View of the Origin, Nature, Cause, Cure and Prevention of that afflicting Disease; illustrated and confirmed by a variety of original and communicated Cases; by R. KINGLAKE, M.D. &c. &c. 8vo. pp. 348. London, 1804.

THIS Dissertation, in so many distinct sections, treats of the "Origin of gout, the nature and constitution of gout; its remote and proximate cause, the cure of gout, and, lastly, its prevention." Some of the opinions of Dr. K. on this subject have been already laid before our readers, in several communications and replies to opponents in former Numbers of our Journal; which he has here republished in an Appendix. This part, which occupies rather more than half the volume, contains also a considerable number of letters, written by other practitioners, some of which are original communications to Dr. K. and some have been published in the Journal.

Those opinions on which Dr. K. appears to lay most stress, may be collected from the following passages, extracted from his recapitulation,

"The earliest records of medicine attest the existence of gouty inflammation; and it has been uniformly considered, rather as a remedial, than a morbid affection.

"This erroneous opinion of its nature, and healthful influence, has survived the correction which enlightened reason afforded to the small-pox, the plague, and other forms of inflammatory diseases, in which stimulant treatment, and inviting and protracting the distemper on the surface, were also adjudged to be the only safe and efficient means of cure; but which unprejudiced observation ultimately proved to be fatally hurtful, and that the very reverse was the most salutary that could be adopted.

"The nature of gout is purely inflammatory, and possesses no peculiar or specific properties to distinguish it from common inflammation, but what are referable to the structure or organization of the affected parts.

"The seat of the gout is exclusively in the ligamentous and tendinous fabric; the texture of which, when inflamed, affords, all

all that is peculiar or characteristic of gout. This fabric therefore is necessary to the constitution of what is called gouty inflammation, which evinces that it cannot occur on any of the visceral or vital organs, as these possess nothing of the ligamentous or tendinous structure.

"The several appellations of gout, rheumatism, and sprain, are only nominally different; they, in fact, describe identity of affection. Any external variation which may present in the degree and progress of the disorder does not alter the fundamental sameness of the disease, which consisting in an inflammatory irritation of the ligamentous and tendinous structure, will exclusively remain such, however variously and capriciously denominated.

"The origin of gout must necessarily be always local, as it can only arise in inflammatory affection of the ligaments and tendons, which are stationed almost exclusively at the joints, and are not co-extended with the system. The peculiar seat of gouty malady at once chains it to the ligamentous and tendinous structure, and gives an undeviating resemblance to its external character. It necessarily originates in every instance in the same natural circumstances, and therefore invariably denotes its existence by the most unequivocal symptoms.

"The diffusion, or propagation, of gout, from the affected joints, is governed by associative or sympathetic influence of motive power; but when arrested on any particular organ, as the brain, stomach, or bowels, it is not characteristic gout in those parts, but simple irritation; the ligamentous and tendinous structure, necessary to gouty inflammation, being wanting in those vital organs. Nor does the local irritation of gout subside by sympathetic distribution, but in the proportion as the severity of pain may have harrassed and exhausted the systematic strength. The consequent general debility will then reduce the local inflammation, and occasion those painfully irregular or agitated motions (usually termed spasm) over the system, which always endanger life, and do often actually terminate in death. Gout, therefore, cannot be strictly repelled; and when it subsides, and the system becomes affected, it is the consequence of extreme reduction of constitutional strength, by protracted pain, and which might have been prevented by its seasonable relief.

"The general health can suffer no other injury from gouty inflammation, than what is occasioned by the debilitating and distempering influence of durable irritation; its early removal therefore renders the disease both mild and safe.

"The general symptoms of gouty inflammation will depend on the temperamental, habitual, or morbid excitability of the system at large, or of any particular organ. If equal health should pervade the frame, no serious impression need be dreaded; but if distempered excitability should have fixed its abode on any particular part, the accumulated weight, or concentered force of sympathetic irritation, may so heavily befall it, as to manifest

every

every degree of violence from transient to inflammatory excitement. But whatever be the situation or extent of the morbid impression, its nature will be conformable to the structure and office of the affected part, and not to the character of gouty, or ligamentous and tendinous inflammation.

"The protracted or natural duration of gout tends to produce irreparable local derangement on the part affected, and a state of the system promptly susceptible of common causes of morbid impression. The diseased joints will, by its long endurance, become contracted, and be farther distempered by altered structure, by calcareous or osseous, and other vitiated secretions; while the general motive powers of the system will be tremblingly alive to every occurring irritation. This deep and complicated mischief is only to be obviated by an early and radical removal of the disease.

"Gouty inflammation, like most other diseases, acquires by frequent recurrence a facility of return, which soon becomes habitual. The ordinances of health owe much of their fixation and uniformity to the influence of incessant or uninterrupted continuance; those of disease become similarly radicated by long usage. It is therefore of vast importance in a curative view, that an ailment should not become habitually inveterate, and that the gout should, in every stage of its duration, be circumvented and subdued in the most expeditious and efficacious manner, to obviate its familiar or customary establishment.

"Excessive heat has been alleged to be the proximate cause of gout, or to be the disease itself; which obviously suggests as an appropriate indication of cure, an early and unremitted endeavour to allay the morbid temperature on the affected parts, and that the means of reducing it should be proportioned or commensurate to the violence of the disease.

"Cold water is the universal boon of nature, the common medium of salutary temperature, as derived from the repulsive or motive conditions of the atmosphere; its uniform application, therefore, to parts suffering under gouty inflammation, by either ablution, showering, or immersion, is a remedy as efficacious as simple for that malady. Inveterate cases, or the high temperature of tropical climates, may (though very rarely) require the aid of artificial cold, obtained from a solution of neutral salts in water, effectually to extinguish the inflammatory heat. The application of diminished temperature should be uninteruptedly continued, until the painful sense of heat be reduced. This usually happens within forty-eight hours, almost invariably before the expiration of seventy-two hours. The avoidance of all dietetic, medicinal, and mental excitement, at the same time, would likewise greatly co-operate in the intention of cure.

"Costiveness should be removed, or obviated, by occasional laxatives. Neither purging, nor an increase of any other evacuation.

tion, is necessary, and by breaking the general strength may prove hurtful.

"The convalescence of gout will require the same attention to further and confirm its progress, as is necessary in that of other violent diseases. A well-conducted plan of nutriment should be regarded as of the first importance in expediting and ensuring perfect recovery. Local friction also, and even topical warm bathing, would be advisable, if an unyielding sense of either torpor or coldness should prevail on the affected part.

"Should a relapse actually occur, it should be treated as the original attack, with such adaptations as the circumstances of aggravated or diminished violence may require.

"Gouty ailment may be either obviated, or arrested in its forming stage, so as to prevent its developement, by resisting the earliest approach of excessive temperature, either generally or locally, by topical cold, aqueous dilution, abstemious diet, cool apartments, avoidance of costiveness, and every other source of morbid excitement, whether universal or partial."

Improvements in medicine are made more slowly than in other sciences, because they are opposed by self interest and prejudice. It becomes necessary therefore, from time to time, to recall the attention of the profession to the errors and prejudices of former practitioners. This appears to have been Dr. K's view in his present work; and there is no doubt that he will have many admirers and many opponents, so that the cause of science cannot fail to be promoted.

Dr. Rowley's Scholæ Medicinæ,

Concluded from pp. 469—473 of the last Number.

After the history and chronology of medicine down to the 19th century, Dr. R. addresses a short admonition to students, respecting the best mode of acquiring a correct knowledge of the different branches of the science.

The Second Part, which may be considered as the principal one, and which occupies 104 pages of letter-press, besides the numerous plates, is devoted to the several branches of anatomy. Novelty, or originality, is not to be expected on these subjects; judgment in selecting and arranging, perspicuity in explaining, and a happy illustration by good plates, are all that can be expected; and in these, Dr. R. has not been defective. We discover in every part of his work a great solicitude to consult the memory of the student; and in order to do this, he disposes his subjects in a tabular form, when it can be done conveniently, and indulges in frequent repetitions, for the sake of placing the facts in various points of view, or recapitulating what is most necessary to be remembered. An instance of this kind occurs in the beginning of the Third Part, where we find a Compendium or Abridgment of the Second Part. This is followed by an abridged Physiology, Pathology, and Symtomatology. The work is concluded by an account of the Marylebone Infirmary, considered as a School of Medicine.

A Medical

A Medical Glossary, in which the Words in the various Branches of Medicine are deduced from their original Languages, properly accented and explained. By W. Turton, M. D. 4to. pp. 622. London, 1797.

As the author of this correct and useful work understood his own views and objects in publishing it better than any other person, we prefer his account of them to any we could give.

" Medicine, like all other arts, has its distinct family of terms and idioms, conveying meanings peculiar and appropriate to its several branches; and the very numerous sources from which these have been collected, have made it not easy for its professors sufficiently to understand the language of their science.

" I have therefore brought together such as usage has fixed, or learned men have adopted, and have contented myself with deducing them from their proper roots, determining their pronunciation, and simply defining them.

" The unmeaning jargon nf Paracelsus and his followers I have purposely omitted, and have been solicitous to preserve those compound words used by the physicians of the Greek school, most or all of which are scattered about in the writings of succeeding ages. My authorities are chiefly derived from Blanchard, Castellus, Minshew, Schindler, and Golius.

" That such a work is useful, will perhaps be more readily admitted than that it has been usefully executed; but he that has laboured long in attempting to remove the obstructions to science, is not willing to add despondence to his difficulties, and to believe that he has laboured in vain."

The modesty of the title, the correctness and perspicuity of the definitions or explanations of the words, almost disarm the hostility of criticism, if we were ever disposed to indulge in it; but we think no Lexicographer has a right or power to say, this is hereafter to be the language of these branches of science. Dr. Johnson, in his Dictionary, has purposely omitted many words which ought to have been retained, because he thought the English language better without them, or because he did not find such authorities for their use as he approved of. Dr. T. has imitated his example; and this is our only objection to the Glossary.

Pharmacopœia Medici Practici Universalis, sistens Medicamenta Praeparata et Composita, cum eorum Usu et Dosibus. Auctore F. Swediaur, M. D. Two Vol. pp. 501. London, 1803.

This valuable compendium of practical pharmacy well merits the attention of the medical public from the pains which obviously have been taken in the selection, and the general accuracy with which the precepts for the preparation of the various articles of Materia Medica are laid down. It will also the more interest the English practitioner, as it contains some articles not generally in

use, and some varieties in the preparation of several of the substances used in medicine.

The Preface begins by asserting the originality of the present compilation of prescriptions, for the greater number of which he acknowledges his obligations to the experience of the successful practice of many of the London Hospitals. Indeed, in this point of view, we apprehend that his work will be still more acceptable to the French practitioners than to our own. The nomenclature of the chemical preparations is that which is now universally adopted by chemists; in the vegetable kingdom the Linnæan is strictly followed. Among other alterations the term *terebinthina* is substituted for *balsamum* (for example, *terebinthina copaiferae officinalis*, instead of *balsamum copaivae)* and with prudent caution the name *tinctura sedativa* is made to supply the place of *T. opii.*

We pass over the author's severe censure on the (supposed) Hippocratic practice, which renders the physician rather a calm spectator of the progress of disease than a vigorous opposer of its ravages, and proceed to a short view of the contents of the work itself.

The purely chemical part of Pharmacy, the preparation of the acids, alkalies, neutral and earthy salts, begins the volume. Among the less common of these articles of Materia Medica are Wertendorf's radical vinegar, made by distilling acetite of soda with sulphuric acid; the citric acid concentrated by frost and mixed with sugar to a dry lemonade; the oxygenated muriatic acid; the phosphoric acid; the sulphite of soda; and the citrates of all the alkalies. Whether many of these will prove permanent acquisitions of value to the Materia Medica appears very doubtful. In a very few instances the directions for the preparation of these salts are defective, but in general they are given with great precision and accuracy. The following quotation will serve as examples of the author's manner of describing, as well as his style of writing that language, the use of which he so strongly insists on in his Preface.

" ACIDUM CITRICUM.

" SYN. *Acidum citri depuratum s. concentratum; acidum limoniorum; succus citri s. limoniorum concentratus.* G. *Acide citrique.*

" ℞. Succi fructus citri medicæ maturi expressi et probe defæcati quantum placet.

" Expone in vase vitreo in balneo aquæ gradui caloris 212° th. Fahr. (80° R.) unde pars ejusdem coagulatur, qua abjecta acidum remanens concentratum et purificatum in vasis probe clausis longo tempore bonum conservari potest.

" ACIDUM CITRICUM, gelu concentratum.

" ℞. Succi ex fructu citri medicæ maturo in loco ejus natali expressi et probe defæcati quantum placet.

" Expone gradui frigoris inter 23° et 26° th. Fahr. (inter 3 et 4° infra zero th. R.) constanter et diligenter tollendo glaciem prout formatur; vel pertundendo glaciem effunde succum concentratum

tratum in aliud vas, et sic repetitis vicibus congelationem repete, ita ut non nisi una tertia pars succi remaneat, qui in vasis probe repletis et clausis longo tempore sanus servari potest.

" Si hujus succi sic concentrati pars una cum partibus sex sacchari albi probe siccati et pulv. misceatur lentis intervallis ita ut saccharum post singulam instillationem succi tempus siccandi habeat, dein ad finem tota massa trituretur, obtinetur *limonada sicca*, quæ in vasis probe clausis usui servetur.

" Pars hujus pulveris in aqua soluta dat limonadam gratam ex tempore quando placet parandam.

" N. B. Prof. Vauquelin, observavit gummi quodcumque in aqua solutum, in acidum citricum mutari, si per hanc solutionem gaz acidum muriaticum oxygenatum transire cogitur.

" ACIDUM MURIATICUM, concentratum.

" SYN. *Acidum muriaticum fumans ; spiritus salis fumans Glauberi ; acidum salis ; spiritus salis marini acidus.* G. *acide muriatique.*

" Gravitas ejus specifica ad pondus aquæ destillatæ sit ut 1,170 ad 1,000.

" ℞. Muriatis sodæ siccati et pulv. libras quatuor.

" Inde in retortam tubulatam quæ in balneo arenæ locata jungatur cum apparatu destillatorio *Woulfiano*, in quo prævie aquæ destillatæ unciæ sedecim distribuantur. Commissuris omnibus probe luto obductis, postquam lutum ubique bene siccatum fuerit, adjice per aperturam tubuli lente et caute :

" Acidi sulphurici concentrati, libras duas. Postquam effervescentia subsedit, ignem sensim administra, donec massa bulliat ; gaz acidum quod in primum excipulum transit, cum aqua destillato ibidem præsente sese jungens format *Acidum muriaticum concentratum* perfecte limpidum et fumans. Vapores in secundum et tertium excipulum transeuntes, ibique aquæ sese jungentes *Acidum muriaticum dilutum* constituunt quod impregnando majori quantitate vaporum acidorum, æque concentratum reddi potest ac primum.

USUS, aquâ *diluti* : Ischuria renalis ; dysuria.—*Concentrati* cum melle *externus* : Aphthæ.—*Item* ad varia præparata pharmaceutica. —Forma vaporum ad putrida aëris effluvia corrigenda."

After these follow the very important class of metallic salts. In the list of metals gold is still retained, very inconsistently in a book which so confidently assumes the merit of excluding all antiquated absurdities ; but though the name is retained, the single preparation of this metal is omitted. Under each metal the oxyds are first described, then the salts, and lastly the sulphurets. We shall only notice the rarer of these. M. Vauquelin's convenient method of preparing the *martial ethiops* or *black oxyd of iron* is the following. Mix two parts of fine iron filings with one of the *red oxyd of iron (crocus martis)*, heat them in a covered crucible with a strong fire for an hour, and when cold reduce the coherent mass to a fine powder, which is the black oxyd. The old and well known mode

of making the same preparation by moistening iron filings with water and long exposure to air (originally Lemery's) is here introduced with trifling variation, and is ascribed to one Cavezalli, who, it would seem, has had the assurance to claim the invention.

In the important subject of mercurial preparations the author is already favourably known to the public, having formerly, in his Pharmacopœia Syphilitica, exhibited a very full view of the various useful salts and oxyds of this metal. '*The black oxyd of mercury by triture, or by ammonia* is not commonly met with in our shops. Its preparation is thus described :

" OXYDUM HYDRARGYRI nigrum.

" SYN. *Æthiops per se; æthiops mercurii simplex; mercurius praecipitatus niger; turpethum nigrum; calx mercurii nigra; mercurius extinctus; mercurius gummosus; mercurius alcalisatus; hydrargyrum cum creta.* Ph. L. *Mercurius solubilis.* HAHNEMAN. *Hydragyrum oxydulatum nigrum.* Ph. B. G. *Oxide mercuriel noirâtre.*

" ℞. Hydrargyri purificati quantum placet. In vase ferreo per plures menses, vel tamdiu continuo agita, aëre sæpe renovato, donec in pulverem griseo-nigrum mutetur.

" *Vel.* ℞. Nitratis hydrargyri liquidi libram unam. Aquæ destillatæ libras decem. Instilla paulatim, Ammoniacæ quantum satis; Id est tamdiu nec ultra, quam præcipitatum inde enatum colore nigro appareat. Pulverem nigrum præcipitatum aquæ destillata probe ablutum sicca, et in vase vitreo clauso in loco obscuro usui serva.

" *Vel melius,* Methodo SCHULTZE.

" ℞. Acidi nitrici concentrati partem unam. Immitte in vas vitreum longo collo instructum et adjice Aquæ destillatæ partes quatuor. Mixtis adde, hydrargyri partes quatuor.

" Expone in balneo arenæ caloris gradui th. Fahr. 120—140 (40—48° th. R.) tamdiu donec vesiculæ in superficie liquoris nullæ amplius appareant, id est, donec actio acidi in metallum cesset.—Dein ignem auge ad 200–210° th. Fahr. (75–78° th. R.) et sic continua per tres aut quatuor horas; tunc bulliat massa per mediam horam. Dein liquorem bullientem in vas vitreum effunde, in quo prævie 50 partes aquæ destillatæ positæ fuerint, et probe agitando misce.—

" Si durante coctione aut digestione crystalli formantur, illico aqua fervida affundatur et pro re nata etiam pauxillum acidi nitrici.—Ad finem operationis hydrargyri pars in fundo maneat; vel si totum solutum fuerit, addatur portio hydrargyri.

" Solutio mox dicta filtretur eique instilletur gradatim ammoniaca, donec nil amplius pulveris nigri præcipitetur. Pulvis niger, aqua destillata frigida probe edulcoratus, per papyrum album filtretur et perfecte siccetur. Massa siccata papyro griseo duplici involvatur et pondere gradatim aucto probe comprimatur ita ut aqua omnis exprimatur.—Dein pulvis extensus super papyrum gradu 70° th. Fahr. (17° th. R.) siccetur sed non majori.

" USUS. Pro parandis variis compositis.

" DOSIS : Grana duo—sex—octo de die."

The

The single article under *manganese* is the black oxyd, and its alleged use (besides assisting in the oxygenated muriatic acid) is to be externally applied as an ointment for cutaneous eruptions, but its use is doubtful.

Under *Stannum*, the pulvis stanni is properly designated as the *Oxydum Stanni Griseum.*

Under *Stibium*, Mr. Justamond's arsenical caustic of antimony and arsenic is given with approbation.

The emetic tartar, the author prepares with the white oxyd or powder of algaroth, but as this triple salt of antimony, potash, and tartareous acid is found often to vary in its composition, the simple tartrite of antimony is recommended in preference. It is prepared merely by dissolving the white antimonial oxyde in tartareous acid, and evaporating the solution to dryness.

To the metallic salts succeed the *Sulphurets*, the only one of which worthy of remark, is the sulphuret of ammonia, made by passing sulphurated hydrogen gas through liquid caustic ammonia. The gas may be extricated either by sulphuret of iron and muriatic acid, or simply by heating the liquid sulphuret of pot-ash.

A few preparations under the title of *Sapones* follow. The intimate union of soap with the more powerful gum-resins, has, with reason, been thought to improve their efficacy, and render them more soluble in the stomach. They are also convenient to be exhibited in the form of pills. These are very intimately mixed by being together dissolved in alcohol, as the author prescribes, and the solution evaporated to a pillular consistence.

The class of *Inflammabilia* includes charcoal, sulphur, phosphorus, resins, oils, and animal fats. The purification of camphor by solution in alcohol and precipitation, is a needless refinement. The following is an imitation of the Indian volatile oil of camphor, so much extolled in rheumatic and gouty cases as an external application. "Mix half a pound of camphor with two pounds of dry pipe clay, and distill in a glass retort with a very slow fire. An acid liquor passes into the receiver, together with a fine volatile oil, and a thick butyraceous oil concreted in the neck of the retort. The volatile oil is to be separated and kept for use.

Among the æthers is given Klaproth's *Acetated Ethereal Tincture of Iron.* It is nine ounces of liquid acetite of iron, mixed with three ounces of acetic ethereal spirit, the preparation of which is also given. A medicine of similar virtues is the nervine tincture, made with muriated iron and sulphuric ether. The whole section on ethers is valuable.

The article *gaza* (gasses) is much too scanty to give any real assistance to the preparer (oxygen excepted).

Ths composition of a few of the most celebrated of the natural or factitious mineral waters is added.

The second part of this Pharmacopœia, is a large selection of formulæ for the use of the practitioner, arranged according to the form of exhibition. Of these, many are selected from various sources

sources of acknowledged authority, both in this country and on the continent; the Pharmacopœias of Copenhagen, London, Edinburgh, Stockholm, and Berlin, have furnished others, and a few appear to originate from the author's own experience. In general they are simple, elegant, and well put together, and the number is sufficient to afford a much greater variety than any practitioner is in the habit of employing. The use and the dose of each formula are added in a few words. The following will serve as an example.

" SOLUTIO CAMPHORÆ AQUOSA. ℞. Aquæ acido carbonico saturatæ libras duas. Camphoræ drachmas duas. Misce.

" N. B. Camphora per se in aqua non solubilis, aqua gaze acido carbonico saturata perfecte solvitur, et sic medicamentum præstat egregium in cardialgia spasmodica, singultu, vomitu rebellibus.

" *Vel:* ℞. Camphoræ drachmam unam. Alcoholis quantum opus. Ut fiat solutio, cui adde Aquæ destillatæ fervidæ, libras duas. Probe simul agitatum liquorem cola.

" *Vel:* ℞. Camphoræ, Gummi-resinæ myrrhæ, ana drachmam unam. Simul probe tere, et paulatim adde Aquæ destillatæ fervidæ libram unam. Frigefactum liquorem cola.

" Usus præcipue pro ægris qui camphoram forma pulveris vel alcohole solutam fere non possunt; Blechropyræ; spasmi; cardialgia; stranguria.

" Dosis: Uncia una—duæ, sæpius de die."

The names of diseases are chiefly those of Sauvages, of which the English reader, who is more familiar with those of Cullen, should be aware. The names given to the materia medica are, as before mentioned, those of Linnæus and of the French chemical nomenclature: and, in some instances, the passion for including a definition in a name has led the author to a ludicrous degree of periphrasis, witness his *Substantia unguinosa (vulgo moschus dicta); Nidus mollis zoophyti, (spongia officinalis); Involucrum reticularis nuclei nucis myristicae moschatae, &c.*

A new remedy proposed for intermittent fever by M. Seguin, (a tanner of Paris, well known by his valuable chemical inquiries into the principles of his art) is here added, with expressions of great confidence in its efficacy. The remedy is the simplest possible, being only a clarified solution of glue, mixed with sugar into a palatable jelly. The following is the formula.

" GELATINA AD DIALEIPYRAS. ℞. Glutinis animalis indurati vulgo venalis libram unam. Aquæ libras sex. Coque ut fiat solutio, cui adjice Albuminis ovi quantum satis Dein massæ probe despumatæ et clarificatæ adde Sacchari albi libram unam. Coque leni igne ad libras tres. Gelatinam sic paratam effunde ut concrescat.

" Usus: Dialeipyræ variæ. Hoc remedium simplex et mite ad dialeipyras varias radicaliter curandas efficacissimum nuperrime invenit Armand Seguin.

" Dosis *infantibus:* Drachmæ duæ-quatuor. *Mediae aetatis et delicatulis:* Drachmæ quatuor-duodecim. *Adultis:* Drachmæ duodecim-

duodecim-quadraginta. Prima dosis exhibenda est mox incipiente paroxysmo, præmissis, si opus, præmittendis; et tempore apyrexiæ ter die, continuando per aliquot dies post-quam febris cessavit. Plerumque intra paucos dies febris radicaliter tollitur."

The author announces a Pharmacopœia Chirurgicalis as ready for publication, to which the utility of the present work makes us look with expectation of deriving real advantage.

A Meteorological Table, by Dr. Higgins, *of Brompton.*

Days of the Month.	Thermometer. Fahrenheit. 8 o'Clock Morning.	Noon.	10 o'Clock Night.	Centigrade. Noon.	Height of the Barometer. Inches. 8 o'Clock Morning.	Noon.	10 o'Clock Night.	Deg. of Evaporation by the Hygrometer	WEATHER.
Oct. 20	59°	62°	51°	16.66	30.04	30.02	30.04	22°	Fair, with flying clouds.
21	57	60	54	15.55	29.93	29.84	29.72	21	Ditto, with rain in the night.
22	56	57	44	13.88	.52	.48	.54	20	Stormy, an Aurora Borealis in the Even.
23	41	54	48	12.22	.72	.76	.84	29	Fair.
24	47	52	48	11.11	.96	.99	.99	28	Fair.
25	45	52	47	11.11	30.00	30.01	30.00	21	Cloudy, rain in the night.
26	52	58	50	14.44	.00	29.98	.00	23	Ditto, rain in the evening.
27	50	51	45	10.55	29.97	.95	29.94	18	Showery.
28	47	56	48	13.33	.90	.87	.77	20	Ditto, with rain in the night.
29	47	51	49	10.55	.75	.69	.58	17	Rain.
30	50	55	48	12.77	.40	.31	.25	28	Showery.
31	50	60	50	15.55	.52	.58	.63	20	Cloudy, rain in the evening.
Nov. 1	50	57	48	13.88	.63	.67	.85	16	Cloudy, rain at night.
2	49	57	47	13.88	.91	.96	30.30	21	Showery, wind and rain at night.
3	46	51	42	10.55	30.58	30.67	.71	30	Windy.
4	42	44	41	6.66	.54	.41	.31	26	Windy.
5	40	42	36	5.55	.26	.26	.29	22	Cloudy, with wind.
6	38	40	36	4.44	.35	.36	.33	23	Cloudy.
7	39	46	43	7.77	.31	.12	29.90	17	Foggy.
8	51	52	47	11.11	29.71	29.59	.52	12	Rain.
9	41	44	46	6.66	.55	.57	.56	16	Foggy, rain at night.
10	51	56	52	13.35	.33	.26	.39	8	Rain.
11	51	50	46	10.00	.34	.37	.94	13	Rain.
12	47	56	50	13.33	30.21	30.23	30.18	14	Showery.
13	51	58	50	14.44	29.92	29.89	29.85	12	Showery.
14	51	53	50	11.66	.79	.75	.80	10	Rain.
15	43	44	42	6.66	30.05	30.09	30.19	16	Small rain.
16	43	46	44	7.77	.30	.33	.37	14	Small rain.
17	46	51	44	10.55	.46	.47	.53	18	Cloudy, rain in the night.
18	45	50	46	10.00	.54	.55	.53	16	Cloudy, with rain at night.
19	50	52	46	11.11	.44	.36	.31	14	Rain.

Account

Account of Diseases in an Eastern District of London, from October 20, to November 20, 1804.

ACUTE DISEASES.	
Typhus	4
Ephemera	5
Dysenteria	6
Variola	2
Rheumatismus Acutus	3
CHRONIC DISEASES.	
Catarrhus	3
Tussis	17
Dyspnœa	15
Tussis cum Dyspnœa	20
Hæmoptoe	2
Phthisis Pulmonalis	4
Hydrops Pectoris	3
Menorrhagia	2
Dysmenorrhœa	2
Amenorrhœa	5
Chlorosis	2
Diarrhœa	20
Vermes	2
Rheumatismus Chronicus	20
PUERPERAL DISEASES.	
Ephemera	7
Menorrhagia Lochialis	4
Mastodynia	3
Hæmorrhois	2
INFANTILE DISEASES.	
Aphthæ	7
Diarrhœa	14
Ophthalmia	3
Ophthalmia Purulenta	2
Herpes	5

Typhus, which for a considerable time appeared very seldom, has lately resumed its place in our list of diseases. It has occurred more frequently within the last three or four months than it has for a long period; nor has it always appeared in its mildest form: In most instances the symptoms have been formidable, and in some cases the disease has proved fatal.

In addition to the usual symptoms, affections of the head have prevailed to an uncommon degree, so as to excite considerable alarm, even at a time when the pulse and other symptoms did not lead the practitioner to form an unfavourable opinion of the result.

In some cases convulsive motions of the face and of the different extremities have occurred, the former approaching to the disease called the risus sardonicus, and the latter accompanied with a kind of spasm of the fingers.

When these appearances have been observed, the fatal catastrophe has soon succeeded, much sooner indeed than might have been expected from merely observing the state of the pulse, and other indications of debility.

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

The "Report of a Medical Committee on the Cases of supposed Small-pox after Vaccination, which occurred in Fullwood's Rents, Holborn, in August and September, 1804, with an Account of some subsequent Inoculations," having been published as we were committing our last sheet to the press, we are anxious to give our readers the earliest, though it must be but a short and most hasty notice of it. The following is the commencement of the Report.

"The cases of two children in Fullwood's Rents, Holborn, said to be cases of small-pox after vaccination, having very much engaged the attention of the public, as well as that of the faculty, it was thought expedient by a numerous body of medical practitioners, met at the house of Messrs. Morgan and Wigham, in Holborn, on Wednesday, October the 3d. 1804, to form a Committee for the purpose of investigating the minute particulars of each case, and of making some experiments, calculated to remove every doubt on the subject.

"A committee was accordingly formed, consisting of the following gentlemen:— Dr. Gower, Dr. Ash, Dr. Pemberton, Dr. Willan, Dr. Temple, Dr. Clarke, Dr. Croft, Dr. Yelloly, Dr. Skey, Mr. Hurlock, Mr. Addington, Mr. Pears, Mr. Morgan, Mr. Wigham."

As the objects of attention had both been vacciolated at the Small-Pox Hospital, a correct copy of the particulars respecting their inoculation was obtained from the register of that Institution, and is given in the Report. The cases of these two children, under the eruptions in question, are first described. With matter taken from the younger child, a series of inoculations was instituted. Cases 3 and 4 give the result of the first experiments. Cases 5, 6, and 7 were inoculated from 3; and 8 was afterwards inoculated from 7; all of which were considered to have the variolous disease produced by the inoculations. Case 8 was even re-inoculated with variolous matter, "with a wish to satisfy some practitioners who could not persuade themselves that the eruption on the child from whom the matter was taken was the small-pox; but who supposed it might be either generically different from the variolous eruption, or some modification of it that would not emancipate the constitution from being again affected with the genuine disease." Case 9 was inoculated from 6; but having been vacciolated at the Small-pox Hospital three years ago, he only was affected similarly to the cases of Mr. Crighton and others, who

who have subjected their vacciolated patients to the test of variolous inoculation. As he slept in the same bed with 5 and 6, his brothers, while they were under inoculation, the Committee consider him to have resisted both the contagion and inoculation of small-pox.

The following is the conclusion of their Report:

"After having faithfully reported the particulars of the investigation proposed, (page 3), the Committee begs leave to observe, that there seems no reason to question the regular progress of the vaccination in Nancy and Mary Hodges, nor the existence of the small-pox more than two years afterwards in the latter, there being no material variation from the usual course of symptoms, either in the disease of Mary Hodges, or in the cases of inoculation with matter taken from her pustules.—The Committee, however, feels it a duty to remark, that the above facts are not to be considered as militating against the general practice of vaccination. Some well authenticated, though rare, cases have been stated, in which the natural small-pox occurred twice in the same person. A few other instances are recorded of persons, who, after having undergone the inoculated small-pox, nevertheless took the disease by infection: yet these cases were not deemed conclusive against the advantages of variolous inoculation, nor do they seem to have impeded its progress.

"In every country where European science is diffused, the general preventive power of vaccine inoculation with regard to the small-pox, has been fully ascertained, and cannot now be affected by the result of a few detached cases, which, by future observations and experiments, may be accounted for satisfactorily—The Committee, therefore, with one accord, subscribes to the established opinion, that if vaccination were universally adopted, it would afford the means of finally exterminating the Small-pox."

Mr. Buchholz has made some experiments on the hydrargyrus muriatus mitis (mercurius dulcis). The common method of preparing this salt is by sublimation of seven parts of mercury and three parts of oxygenated muriat of mercury; the precipitation adopted by Scheele having been laid aside, because apothecaries are of opinion that this production on being mixed with lime water or alkaline solutions does not sufficiently blacken those substances. The author, therefore, examines whether these productions be really different from one another. For this purpose equal parts of mercury and of nitric acid are mixed together, and left for some time in the cold; it is then exposed to a gentle heat in a sand bath till it begins to boil, after which the liquor is poured, whilst hot, into a solution of muriat of soda, that contains equal parts of this alkali, and mercury. The precipitate obtained by water saturated with sal ammoniac or muriat of ammonia, is boiled and carefully washed; a copious production is obtained; and the author proves, by a series of experiments, that it does not differ from that obtained by corrosive sublimate; this method also appears to him more advantageous, and less dangerous than that by sublimation.

Mr. SCHMIDT has made the following experiment on the decomposition of sulphat of pot-ash and of sulphat of soda, in the dry way, by means of quick lime. On igniting for half an hour a mixture of three parts of quick lime and two parts of sulphat of pot-ash, afterwards dissolving the mixture and evaporating the liquor, carbonat and sulphat of lime will be precipitated, whilst a small quantity of carbonat of pot-ash remains in the water. He made the same experiments with sulphat of soda, the results of which were more successful, and the decomposition more complete. It is therefore certain that the decomposition of these two sulphats takes place by quick lime, but that these processes do not appear to be very profitable.

Mr. Dupuytren on the Formation of the Larynx in Eunuchs.

There exists in the animal economy several instances of the influence which takes place between organs that are not contiguous to one another; one of the most remarkable instances of this kind is the sympathy which subsists between the testicles and the organs of voice. The larynx is observed to develope itself in several animals during the rutting season, and the smallness of the larynx, the narrowness of the glottis, and the shrill voice, coincide with the state of the inactivity which the testicles show before the approach of puberty. This period however being arrived, the organs for seminal secretions are developed, and become active, while, at the same time, the larynx rapidly increases in males, and the voice takes that grave sound which makes one of the characters of virility. But, on the contrary, when the testicles are cut away before this period, the source of the phenomena which characterise it vanishes, and the organs of voice remain in a state of imperfection. Mr. Dupuytren has lately had an opportunity of confirming the justness of the observation by dissecting the larynx of a man who had been castrated in his infancy, as he found this organ to be one third less than it is met with in most men of the same age and habit. The glottis was very narrow, and all the organs of voice rather resembled those of a woman, or a youth before the period of puberty.

On Heat disengaged by the Compression of Air.—A very curious experiment has been lately repeated before the National Institute. On forcibly and rapidly compressing the air in the pump of a wind gun, a considerable heat is disengaged at the first push of the piston, sufficient to inflame a piece of tinder which is placed within the pump. When the body of the pump is terminated with a mobile end, closely screwed to it, having in its centre a strong glass lens, a vivid and brilliant light will be seen, which is suddenly disengaged by the first push of the piston. This discovery is said to have been accidentally made by a workman in the manufactory of fire-arms, at St. Etienne. It has been successfully repeated by Mr. Mollet, of Lyons, and certainly deserves the notice of naturalists, as it may tend to explain the nature of light and heat.

Mr. J. C. SAUNDERS, Demonstrator of Practical Anatomy at St. Thomas's Hospital, has lately published a Proposal for the Establishment of a Dispensary for the Relief of Persons afflicted with Diseases of the Eye and the Ear; which has been recommended to the public by the signatures of all the physicians and surgeons of St. Thomas's and Guy's Hospitals. The following is the plan upon which it is to be conducted.

1. That a Dispensary be opened for the benefit of the poor, who are afflicted with diseases of the eye and the ear, where they may apply, and obtain medicines gratis.

2. That the Dispensary be central in its Situation, and contain two beds for the reception of patients who undergo the operation of the cataract, or any other operation of the eye requiring minute care.

3. That the Charity may be established at as little expence as possible, it is suggested that a house of a very moderate rent, will be sufficient for all the purposes of this charity.

4. That a person contributing an annual subscription of One Guinea, be a Governor, and have the right of recommending, and keeping under the care of the charity, one out-patient; or two, if his subscription amounts to Two Guineas.

5. That Persons afflicted with cases, which make it necessary that they should be received into the house, shall be received according to priority of recommendation.

A second edition of Dr. TROTTER's Essay, Medical, Philosophical, and Chemical, corrected and enlarged, is now in the press, and will be published in the course of the ensuing month.—French and German translations of this Essay are announced at Paris and Vienna.

To CORRESPONDENTS.

Mr. CHAMBERLAINE's work on Worms and Vermifuges will be noticed in our next Number.

Communications are received from Drs. Adams, Turner, and Kinglake, Messrs. Hall, Simmons, Low, Davies, Crowfoot, Whitlam, Ryal, Bond, Chamberlaine, Peaal, Shearly, Williams, Philologus, T. R. Humanus, and H.

ERRATA.

P. 448, l. 12, for Pazzoni, read Pezzoni.
459, l. 21, for Weenda, read Weende.
463, l. 1, for Docteorem, read Doctorem.

END OF VOL. XII.